

South McCullough Wilderness and Wee Thump Joshua Tree Wilderness



Wilderness Management Plan and Environmental Assessment

Final – September 22, 2005

**Wilderness Plan for the
South McCullough and
Wee Thump Joshua Tree Wilderness Areas**

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Introduction

Scope of the Wilderness Management Plan

This plan provides the primary management guidance for the South McCullough and Wee Thump Joshua Tree Wilderness areas. The plan also addresses some actions outside the Wilderness areas including wilderness access and information provided to the public. Due to proximity and similar management issues, these two Wilderness areas are being addressed in a single management plan. The plan is anticipated to address management over the next 10 years. The plan 1) identifies the conditions and opportunities which will be managed for within the wilderness areas; 2) creates specific guidance for managing the resources and activities existing in the wilderness; and, 3) preserves the area's wilderness characteristics cumulatively identified as untrammeled quality, outstanding opportunities for recreation or a primitive form of recreation, undeveloped character, and natural primeval character. The first part of the Wilderness Plan is a comprehensive description of the wilderness situation and proposed management. The second part is an Environmental Assessment (EA) which fully describes and analyzes the proposed management and three other alternatives considered.

The plan is consistent with the Clark County Conservation of Public Lands and Natural Resources Act of 2002, the Wilderness Act of 1964, Grazing Guidelines (House Report No. 101-405, Appendix B), and Wildlife Management Guidelines (House Report No. 101-405, Appendix B). The plan is also consistent with Code of Federal Regulations 43 Part 6300, BLM Manuals 8560

(Management of Designated Wilderness Areas) and 8561 (Wilderness Management Plans), Las Vegas Resource Management Plan (USDOI 1998), Memorandum of Understanding Between the Bureau of Land Management and the Nevada Department of Wildlife (BLM MOU 6300-NV930-0402), and the Clark County Multi Species Habitat Conservation Plan (2000). The Jean Lake Allotment Management Plan (1998) and other activity level plans completed previously and covering the Wilderness areas are superseded by this plan.

Wilderness Overview

The South McCullough and Wee Thump Joshua Tree Wilderness areas were added to the National Wilderness Preservation System by the Clark County Conservation of Public Land and Natural Resources Act of 2002 (Public Law 107-282 Nov. 6, 2002). The South McCullough Wilderness has approximately 44,245 acres. The Wee Thump Joshua Tree Wilderness has approximately 6,050 acres. These two Wilderness areas are managed in their entirety by the Bureau of Land Management, Las Vegas Field Office. No private inholdings are present.

The two Wilderness areas are located in close proximity to one another and approximately 30 miles south of Las Vegas and 10 miles west of Searchlight in Clark County, Nevada. Elevations range from about 3,000 to 7,000 feet. Summer temperatures at lower elevations frequently exceed 100 degrees, and in winter temperatures regularly dip well below freezing. In the higher elevations snow is common in winter, and during summer monsoonal thunderstorms are common. The landform is an uplifted fault block of gneiss

and granite with steep slopes and narrow canyons. Some eastern areas are overlain by tertiary andesite, rhyolite, basalt, and tuffs. Lower slopes, including the majority of the Wee Thump Joshua Tree Wilderness, are gently sloping alluvial deposits of un-sorted sand, gravel, and cobbles. The Wilderness areas include creosote desert, Joshua tree stands, and pinyon woodland vegetation communities. Animals of special interest include desert tortoise, bighorn sheep, and mule deer. Visitation is greatest in the central western portion of the South McCullough Wilderness due to proximity to Las Vegas and a county maintained road to that area. Recreational use levels are currently light, but expected to grow with the rapid growth rate of Las Vegas and as information of opportunities become more available.



No areas of high mineral resource potential have been identified in the Wilderness areas. In the South McCullough Wilderness three current but undeveloped mining claims have active filings, though their validity has not

been determined. In the Wee Thump Joshua Tree Wilderness, eight current but undeveloped mining claims have active filings, though their validity has not been determined. There are no mineral leases in either Wilderness. The Jean Lake grazing allotment encompasses the western portion of the South McCullough Wilderness. Clark County has expressed interest in purchasing the grazing permit with the intention of relinquishing the grazing privilege and permit so that the allotment may be closed for habitat conservation purposes. Livestock developments in the Wilderness include spring developments and some fencing. Water rights for livestock or wildlife benefit exist on or have been applied for North Railroad Spring (also known as Corral Spring), Badger Springs, Granite Spring, Mesquite Spring, Joshua Spring, and Dry Seep. A 40-acre private parcel is located outside the wilderness near McCullough Spring on a route providing access to the Wilderness.

No motorized activity is currently permitted in either the South McCullough or Wee Thump Joshua Tree Wilderness Areas. However, motorized use could be approved on a case by case basis for grandfathered or other excepted activities. Fire is an extremely infrequent part of the natural ecosystem in the lower creosote dominated elevations, and a moderately frequent part of the natural ecosystem in the upper pinyon dominated elevations. Fire management entails suppression of all fires. For a more detailed description of the environment see the Affected Environment section in the Environmental Assessment portion of this plan.

Wilderness Characteristics

The central western portion of the South McCullough Wilderness and the entire Wee Thump Joshua Tree Wilderness provide good opportunities for solitude while the remainder of the South McCullough Wilderness provides outstanding opportunities for solitude. The South McCullough Wilderness provides outstanding recreation opportunities for hiking on and off trail, horseback riding, hunting, exploration, and camping. The Wee Thump Joshua Tree Wilderness

provides outstanding recreation opportunities for nature observation and particularly birding and viewing Joshua trees. The natural character of the two areas is generally free of human imprint except for several former vehicle trails, developed springs, mining disturbances, and a livestock operation. The primeval character is intact except for the occurrence of some introduced plants, primarily annual grasses. Additional Wilderness features of the South McCullough Wilderness are bighorn sheep, desert tortoise, and springs. Additional Wilderness features of the Wee Thump Joshua Tree Wilderness are Joshua trees and songbirds.

National Wilderness Management Goals

- 1) To provide for the long-term protection and preservation of both areas' wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they will remain unimpaired.
- 2) To manage the Wilderness areas for the use and enjoyment of visitors in a manner that will leave the areas unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- 3) To manage the Wilderness areas using the minimum tool, equipment, or structure

necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.

- 4) To manage nonconforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Nonconforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

Wilderness Specific Issues

Issues to be addressed in the Wilderness Plan were identified through public scoping in the form of written letters, by BLM staff, and other agencies. A public scoping meeting was held at the Las Vegas BLM

office on April 29, 2004. Issues were also identified by BLM resource specialists. Issues addressed in the plan are listed below. Most issues identified by the public also included a preference for management. Although the preferences were used in developing a range of alternatives, the summary listed here is of the issue only.

1. Opportunities for solitude and primitive, unconfined recreation.

- Establishment, maintenance, signing, and management of designated or visitor developed trails.
- Recreational uses including hiking, horseback riding, hunting, and camping.
- Availability of water along trails for equestrian use.
- Management of campfires in the Wee Thump Joshua Tree Wilderness.
- Designation and design of trailheads and other vehicle access points, including signing, equestrian loading, and preventing OHV trespass.
- Visitor access and management at McClanahan Spring, Railroad Spring (also known as Willow Spring), McCullough Spring, Pine Spring, and a vehicle pullout on Highway 164.
- Availability of maps and written materials for the Wilderness areas.

2. Protecting and enhancing the undeveloped and natural appearance of the Wilderness areas.

- Restoration of surface disturbances including former vehicle routes and mining disturbance.
- Clean up and removal of junk.
- Posting Wilderness boundaries to reduce chance of off-highway vehicle (OHV) violations.

3. Preserving the naturalness and primeval character and influence of the Wilderness areas.

- Management of Threatened & Endangered Species, and other species of special interest or concern.
- Trapping, transplanting, and relocating wildlife.
- Development of new wildlife water sources.
- Management of fire.
- Management of exotic and invasive plant species.
- Inventory, monitoring, and research of flora, fauna, and archeological resources.

4. Managing special non-wilderness land uses allowed by the Wilderness Act.

- Preventing cattle drift into the closed McCullough Mountain allotment.
- Management of grazing facilities inside Wilderness.
- Outreach to other governmental agencies to foster compliance with wilderness goals.

5. Wilderness Management

- Using monitoring to adjust management actions.

Some issues were identified for subjects already addressed in existing planning documents or policy, and out of the scope of this plan. These are listed in Appendix A.

Wilderness Management Objectives

The following objectives address management of the South McCullough and Wee Thump Joshua Tree Wilderness areas under the National Wilderness Management Goals and address the identified issues. The objectives are not listed in order of priority.

- a) Provide outstanding opportunities for primitive recreation for hiking and horseback riding with minimal supporting actions and primarily without trails. In areas of greater frequency of visitation, provide trails to help manage impacts.
- b) Maintain existing opportunities for solitude by managing visitor use patterns if monitoring indicates a need.
- c) Provide for the use and enjoyment of the wilderness in such a way that protects natural conditions and uses through minimal regulation of visitor activities.
- d) Provide for vehicle access to the Wilderness areas while also deterring vehicles from continuing into and entering the Wilderness areas.
- e) Maintain or enhance the natural appearance of the Wilderness areas by

removing unnecessary facilities and minimizing or restoring human caused surface disturbances.

f) Preserve the primeval character and influence of the Wilderness areas by reducing non-native plants in favor of native plants.

g) Manage for healthy, viable, and naturally distributed wildlife populations with the least amount of trammeling actions necessary.

h) To preserve the primeval character and influence of the wilderness, allow fire as a natural process to create disturbance followed by natural succession in the Wilderness where fire is a natural effect in the ecosystem. Prevent fire where fire is not a natural effect in the ecosystem or where human life or property is threatened.

i) Allow for special provision land uses provided by the Wilderness Act or Clark County Act while minimizing developments, changes to naturalness, and other impacts to wilderness resources.

Current Situation and Assumptions

The current situation and assumptions of changes expected to occur during the 10 year life of the plan are considered before developing management actions for the plan objectives. Inventory, monitoring, and research will be an important aspect to meet the objectives of the plan.

1) Visitor use of the Wilderness will increase from sporadic visitation to daily visitors on weekends in the spring and fall and frequent, but less than daily, visitors on

spring and fall weekdays and winter and summer weekends. Visitation will remain sporadic on weekdays in winter and summer. Recreation will require management to preserve the future use and enjoyment of the Wilderness areas.

- The South McCullough Wilderness is within 45 minutes of Las Vegas and has good quality road access, especially the Knight Ranch Road to McClanahan Spring. McClanahan Spring will be the most commonly visited access point of the wilderness. It used to receive more visitation prior to a locked gate being erected at the cattle ranching camp there; and if the gate is removed, a renewed interest in the location is expected.
- Visitors may discover the Wilderness areas through BLM maps and website pages, newspaper articles, and guidebooks published by independent sources.
- Population in the Las Vegas Valley area will continue to grow, and in particular, between Jean and Las Vegas. Nearby attractions will receive increasing attention and more housing will be located closer to the South McCullough Wilderness.
- Visitors interested in non-motorized recreation and looking for new opportunities or less crowded places will discover the Wilderness areas now that they are Congressionally designated and depicted on maps. Visitation levels are expected to increase, although use levels are not expected to surge dramatically. Observations of visitor use patterns to BLM administered desert

Wilderness areas near Phoenix, AZ suggest that some xerophobia or reluctance to hike in the desert tempers the increase in interest often expected with new Wilderness designations.

- Recreational activities will continue to be principally hiking, hunting, and horseback riding.
- Low interest in and potential for guiding services is present.

2) Preserving the natural appearance of the Wilderness areas, including sights and sounds, will require some limited management input.

- The west central portion of the South McCullough Wilderness is adjacent to the Jean/Roach Dry Lakes Special Recreation Management Area managed for concentrated off-highway vehicle recreation. Management will need to recognize the potential for OHV trespass.
- The Wee Thump Joshua Tree Wilderness will continue to be affected by the sounds from the adjacent state highway, and the sight of power lines and radio repeater facilities.
- Aircraft overflights in both areas are infrequent and are usually at high elevation. However, a proposal exists for the construction of a cargo/passenger airport between Primm and Jean. Aircraft overflights could degrade the solitude of the Wilderness areas if flight paths are set over the two areas.

- A number of surface disturbances or installations occur within the Wilderness areas and will require some one-time work to remove or rehabilitate them.

3) Preserving the primeval character and influence of natural resources will not require substantial management input.

- Other than a few recordings of tamarisk, listed noxious weeds are not known to occur in the Wilderness areas. Red brome, an exotic and invasive weed, is widespread and eradication is currently not possible, although management actions to reduce surface disturbance can help prevent it from dominating the ecosystem. New introductions of noxious weeds are possible and need to be addressed early to prevent widespread infestation.
- Fire is an infrequent occurrence in the Wilderness areas. However, the lower elevations are not fire adapted and fire in these areas may cause conversion from native dominance to dominance of introduced species. In the upper elevations, where fire is a natural part of the ecosystem, the fire regime and fuels loading are within the expected range of variability and natural fire could benefit the ecological cycle.
- Natural water sources in and around the Wilderness areas, primarily groundwater springs, and several artificial developments around the Wilderness areas are currently sufficient for supporting viable and naturally distributed wildlife populations.

- Inventory, monitoring, or research projects will be periodically proposed within the Wilderness areas. Most proposals will add to the understanding of the wilderness resource and help improve wilderness management. However, all proposals will need to be reviewed before approval to assure the work is compatible with preservation of the wilderness resource and is not more suitable outside of wilderness.

4) Livestock grazing on the Jean Lake Allotment may or may not continue as Clark County is negotiating purchase of the grazing permit from the present permittee. A portion of the Jean Lake Allotment is within the South McCullough Wilderness. The Las Vegas Resource Management Plan (RMP) allows for the closure of this Allotment based on the voluntary relinquishment of the grazing privileges. If purchased, Clark County would relinquish the grazing privileges and the BLM would close the allotment to livestock grazing. One of two mutually exclusive situations will be present, depending on whether or not the sale occurs.

- If grazing continues, cattle will continue to drift through gaps in natural terrain that are not fenced. This will result in grazing in portions of the South McCullough Wilderness that are not open to grazing without corrective management action. Livestock developments would continue to be used and maintained on an as needed basis. Some redesign of developments around springs may need to occur to protect riparian vegetation and wildlife uses while providing adequate access to cattle when use is authorized, and

denying access to water when use is not authorized.

- If grazing is discontinued, livestock drift into closed areas will end and any existing range developments that would not be needed for other management purposes may be removed.

Management Strategy

The management strategy is based on the wilderness management objectives and the current situation and assumptions. Two distinct conditions are present which influence how the strategy is carried out. First, the majority of the South McCullough Wilderness is remote and access is difficult. Second, portions of both Wilderness areas are very easily accessed and close to the Las Vegas metropolitan area which is continuing to grow and will result in increased visitation. Management actions correspond with two management strategy zones.

Zone One

This zone includes the entire Wee Thump Joshua Tree Wilderness and west central portion of the South McCullough Wilderness. Access by designated trails and trailheads will be available. Directional signs may be provided. Designated trails and washes will be available for horseback riding. Packed in and certified weed free feed would be required when feeding animals used for recreational riding or pack stock. Few lightly used informal trails will be encountered. Camping will be allowed and visitors may occasionally see previously used sites, but no more than two sites within a quarter mile. Camping with animals used for recreational riding or pack stock will be limited to areas around washes. Unwanted trails and sites will be actively rehabilitated or allowed to recover naturally. Some

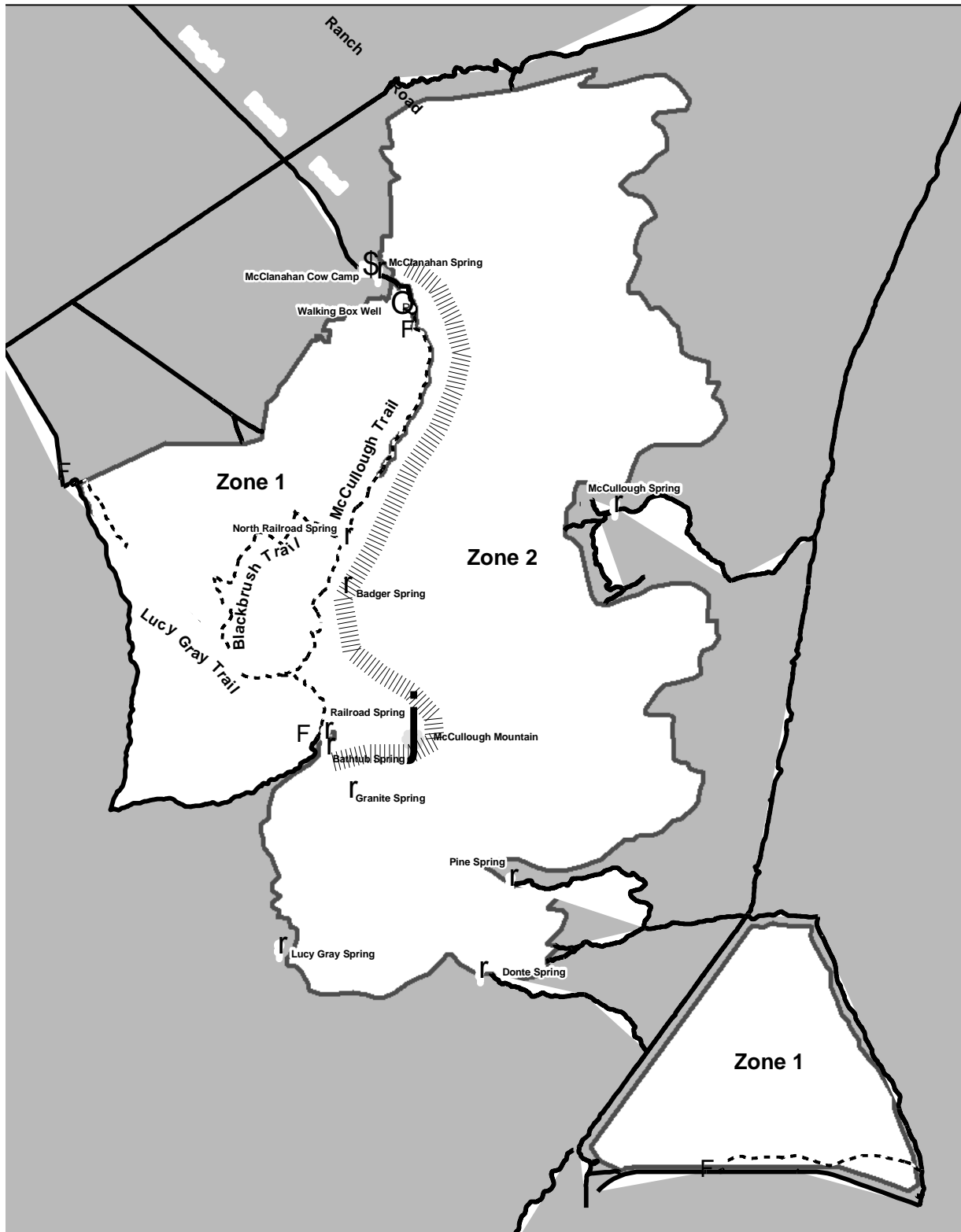
opportunity for solitude will be present, but visitors will have the greatest possibility of encountering other visitors, especially near trailheads. Group size may be limited. The sights and sounds of human activity will be common, but primarily from outside the Wilderness. Some risk and challenge will be encountered, but route finding would be easy with the aid of trails. The natural setting may be minimally modified for recreation access, but in ways that protect natural resources and have minimal visual impact. Management decisions will support healthy, viable, and naturally distributed wildlife and plant populations.

Zone Two

This zone includes the majority of the South McCullough Wilderness not in Zone One. Access will be available where roads end at the Wilderness boundary and small area in which to park will be present. Few lightly used informal trails may be encountered. Foot worn hiking paths may receive occasional management activity to protect resources. Foot worn hiking paths will be brushy, steep, or erratic. No directional signs will be provided. Only washes will be used for horseback riding. Packed in and certified weed free feed would be required when feeding animals used for recreational riding or pack stock. Camping will be allowed but visitors will rarely see previously used sites. Unwanted trails and sites may be actively rehabilitated by management or allowed to recover naturally. Opportunity for solitude will be outstanding and encounters with other visitors rare. The sights and sounds of human activity will be infrequent and normally only from outside the Wilderness. Risk and challenge is greatest in this zone. Finding one's way will be moderate to difficult and will require map reading, orienteering, or climbing skills. The natural setting may be minimally modified for recreation access to protect

natural resources. Management decisions will support healthy, viable, and naturally distributed wildlife and plant populations.

Any necessary facilities will be located where rarely viewed by visitors.



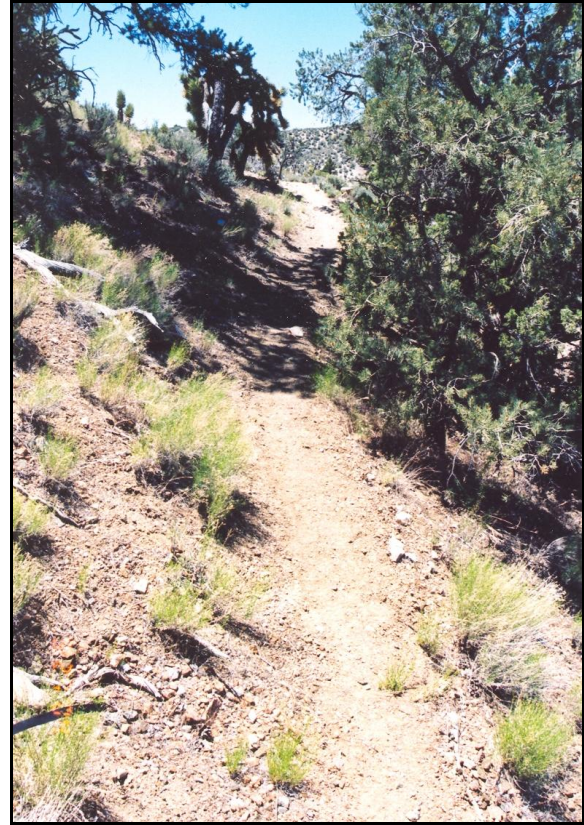
Wilderness Management Actions

The following site specific actions will be implemented at the South McCullough and Wee Thump Joshua Tree Wilderness Areas. These actions meet the wilderness management objectives and respond to those Wilderness specific issues identified through scoping. All actions are supplemental to and consistent with Wilderness laws, regulations, and policies (see listing on page 1) which must be further consulted in the event of issues unforeseen in this plan. Maps of the desired future condition are on pages 24 and 25.

- **Designate approximately 19.1 miles of trail in the South McCullough Wilderness and approximately 3 miles in the Wee Thump Joshua Tree Wilderness as hiking and equestrian trail.**

Designate the following existing trails, convert them from motorized use to hiking and equestrian use, and display on BLM maps. In the South McCullough Wilderness: 1) McCullough Trail, 8.1 miles (McClanahan Spring to Railroad Spring); 2) Lucy Gray Trail, 6.7 miles (Jean Lake water haul and corral to McCullough Trail); and, 3) Blackbrush Trail, 4.3 miles (Lucy Gray Trail to McCullough Trail). In the Wee Thump Joshua Tree Wilderness: 1) Joshua Tree Trail, 3 miles (along the southern boundary). Trail sections in washes total 9.3 miles, trail sections not in washes total 12.8 miles (3.7 acres). Approximately 0.3 miles (0.2 acres) of new trail will be constructed at two locations: 1) A bypass of Badger Springs designed to focus attention away from the spring and create a 0.25 mile separation; and 2), connection of the Joshua Tree Trail with a highway pullout. In

addition, some short new trail sections may be constructed to correct problem segments (see the following trail standards section). No other new trails will be constructed or designated.



McCullough Trail

- **Define standards for trail condition and maintenance.**

Trails may be maintained or rerouted where they are causing or anticipated to cause damage to wilderness character. Trail rerouting will be limited to short sections within the cultural and botanical clearance area (200 ft alignment) for the trail, for the purpose of avoiding sensitive resources or steep terrain. Approximately eight sections in the existing trail are known to be in need of immediate relocation. Most of these are about 20 feet, the longest section being 175 feet. Examples for when trail maintenance or rerouting will occur includes: 1) slopes

greater than 15 percent, beyond which potential for excessive soil erosion and trail deterioration is high. Very short steep sections may be retained where reinforcement with native rock will prevent soil erosion. Rolling dips or rock enforced water bars will be utilized to reduce water caused soil erosion. 2) Where trail braiding or duplicate routes exist or are beginning to occur, the most appropriate trail will be selected by improving its tread surface or trimming back vegetation. The alternate trail(s) will be obstructed and rehabilitated with rock or native vegetation. 3) Maintenance will strive to limit trail width to 24 inches, and not exceed 36 inches except trail sections along precipices (where it may be wider for safety) or in washes. Width standards are applied to continuous segments longer than 50 feet. Tree limbs or fallen trees may be cleared within 10 feet high and 4 feet to either side of trail (cutting limbs at trunk) or, where practical, minor trail relocation to avoid the tree. 4) Trails may be rerouted to avoid damage to natural or cultural resources.

- **Establish standards for managing foot worn hiking paths.**

In addition to designated trails, foot worn hiking paths may be available for use upon discovery by visitors. Foot worn hiking paths will not be marked on the ground, displayed on BLM maps or brochures, or normally receive maintenance. Creation of new foot worn hiking paths will be discouraged. Where present, foot worn hiking paths will normally be brushy, rough, and of erratic grades making them more challenging to traverse than a designated trail.

An inventory of foot worn hiking paths will be maintained and monitored for resource damage. Field monitoring will identify



Joshua Tree Trail – during rain

paths that have substantial footprints, lead to camping areas, have cut vegetation, or other evidence of use. Flat bottomed sandy washes will not be defined as foot worn hiking paths. Field monitoring will be combined with a periodic review of private sector published route descriptions.

As new foot worn hiking paths are discovered, they will be evaluated for impact to wilderness character (including cultural or biological) and the management objectives of this plan. Where possible, new foot worn hiking paths will be rehabilitated (see guidelines for rehabilitation of disturbances later in this section). Some foot worn hiking paths may lead to popular sites and receive regular human use, or may be used by wildlife or livestock to such an extent that rehabilitation may not be possible. Where foot worn hiking paths are retained but the trail is found to be unstable or causing an adverse impact, the trail may be rerouted, improved, or maintained following the standards for trail condition and maintenance defined for designated trails above. However, only the problem section may be worked so as to make the path compatible with protecting resources, not to make the path easier to travel or to attract use. Before taking action on foot worn hiking paths that are not presently

identified, a separate Environmental Assessment will be prepared. Examples of adverse impacts to wilderness character include excessive erosion (for example becoming a gully or a tread surface difficult to maintain a footing on), creating excessive impact (such as trail braiding or widening), or other unacceptable impact to the wilderness resource.

Two existing trails will be monitored as foot worn hiking paths. These include the non-wash portions of the Walking Box Trail (approximately 1.1 mile section between McClanahan Spring and McCullough Spring) and McClanahan Trail (approximately 0.25 mile section between McClanahan Spring and McCullough Pass). Monitoring for new foot worn hiking paths will specifically occur at McCullough Mountain, Badger Springs, all vehicle access points, and at those routes closed through this plan.

- **Interpretation.**

General interpretive information for natural resources, wilderness, and recreation will be located on kiosks, maps, or brochures. No interpretive trails will be designated.

- **Designate three trailheads at the South McCullough Wilderness and one trailhead at the Wee Thump Joshua Tree Wilderness.**

A trailhead will be designated at the end of the Knight Ranch Road for eight vehicles plus three vehicles with trailers. Trailer parking will be at or near the McClanahan cow camp depending on whether or not the Jean Lake Allotment permittee voluntarily relinquishes the grazing permit. Car parking will be located approximately 2 miles beyond the cow camp at a point determined through, botanical, wildlife, and cultural review. The Knight Ranch Road through

the McClanahan cow camp will be restored to public use. If grazing continues in the allotment, the road will be fenced along its edge to separate visitors from the cattle operations at the McClanahan cow camp. Between the McClanahan cow camp and the McCullough Trailhead, pull-outs will be created to provide for vehicles passing in opposite directions. Otherwise, no roads will be improved to facilitate wilderness trailhead access greater than that currently existing. Past the McClanahan cow camp, vehicle use will be limited to the trailhead access road; motor vehicles will not be permitted beyond the trailhead to enhance equestrian and hiking recreation and prevent parking and passing problems.



Route outside of Wilderness past McClanahan Spring which will be converted to non-motorized trail.

A trailhead will be designated at or near the Jean Lake water haul site depending on the status of the livestock grazing operation. It will accommodate parking for three vehicles plus two vehicles with trailers. A walk-through will be constructed in the fence adjacent to the trailhead. A wire fence approximately 0.3 miles long will be constructed perpendicular to the exiting fence and parallel to the boundary road to reduce vehicle trespass. The fence will include a walk and ride through opening on the Lucy Gray Trail. A trailhead will be designated near Railroad Spring with parking for three vehicles. A trailhead will be designated at the existing Highway 164

pullout, but will not be signed on the highway so as to avoid attracting incidental visitation. BLM will consult with the Nevada Department of Transportation regarding use and alterations that may be necessary to the existing highway pull out. Post or rock barriers will be placed at trailheads as needed to limit parking area disturbance or prevent motorized entry into the Wilderness.

- **Manage vehicle access points.**

Other than designated trailheads, vehicles may access the Wilderness at additional points where existing roads end at the boundary. This includes nine points and three boundary roads at the South McCullough Wilderness and anywhere along the entire boundary of the Wee Thump Joshua Tree Wilderness. Except for changes to the Knight Ranch Road described earlier, no roads will be improved to facilitate Wilderness access. The Knight Ranch Road to the McCullough Trailhead, road to Colada Well, and road over McCullough Pass would receive Level 3 maintenance: as needed maintenance of drainage and road prism, and sight distance. The south boundary of the Wee Thump Joshua Tree Wilderness is a paved, state maintained highway (Highway 164). All other access roads will receive Level 2 maintenance: Minimum maintenance which may include obstruction removal, maintenance of drainage facilities, and minimum maintenance of road prism. Vehicle access points will be defined by creating turn arounds at suitable locations at or before the wilderness boundary to help direct vehicles from continuing into Wilderness. Turn-arounds will be located at already established, sufficient size pull outs when present within ¼ mile of the wilderness boundary. Otherwise, new turn arounds will be created. Turn arounds will

occupy approximately 0.1 acres and have adequate space for two vehicles to park without blocking the turn around.

Vehicle barriers will be constructed where natural barriers are not adequate to keep vehicles from traveling past the turn around. Barrier design will be prioritized as follows: 1) Wilderness sign, berm associated with turn around, small rocks, and or vegetation placement or restoration; 2) large boulders moved by heavy equipment; 3) posts; or, 4) fence or gates.

Vehicle access points will be located ¼ mile from springs unless separated by a ridge or similar topographical feature that will minimize disruption to wildlife. No distinct access points will be provided on boundary roads. Existing parking areas on the interior of the Wee Thump Joshua Tree Wilderness boundary roads will be closed and rehabilitated. Parking pull-outs and camping areas will be limited to the exterior of the Wee Thump Joshua Tree boundary roads to reduce the potential for vehicle use or escaped campfires spreading into the Wilderness area.

- **Manage camping.**

Backcountry camping will be allowed except, to minimize disruption to wildlife, within 300 feet of springs or water troughs or within a fenced enclosure. To reduce potential ignition sources in the Joshua tree stands, campfires will be prohibited in the Wee Thump Joshua Tree Wilderness – camp stoves will be allowed. Campfires will be allowed in the South McCullough Wilderness except under regional fire hazard restrictions, but visitors will be encouraged to use only camp stoves. Leave-No-Trace techniques will be encouraged through literature and other contacts. If more than two campsites (as identified by the presence of a campfire ring) are identified within a quarter mile of each other, the campsite(s)

that is the least impact to resources (for example, a newly established site) will be naturalized including removal of the campfire ring. Campfire rings closer than 300 feet to water or at sites with other sensitive resources (for example a cultural site or area with rare plants) will also be removed. Occupying a camp site will not be allowed for more than 14 days.

- **Maintain solitude and visitor encounter standards.**

In the west central portion of the South McCullough Wilderness and the entire Wee Thump Joshua Tree Wilderness, visitors will have good opportunities for solitude.

Outside sights and sounds will be encountered on most trips. Encounters with other visitors will be expected on the hiking trails. Encounters with other groups (visitors traveling within sight or sound of one another) more than ½ mile from the Wilderness boundary will be infrequent, with no more than eight encounters per day exceeded on no more than four days per year. The remainder of the South McCullough Wilderness will have outstanding opportunities for solitude where encounters with other groups more than ½ mile from vehicle access points will be rare, with no more than two encounters per day exceeded on no more than three days per year. Outside sights and sounds are rare or of short duration.

Management actions that may be initiated if standards are exceeded will be prioritized as follows: 1) educate visitors concerning wilderness ethics and manners to reduce conflict with other visitors; 2) inform visitors of non-wilderness hiking and equestrian opportunities in the region; 3) reduce the availability of or modify BLM brochures or maps that may be promoting high use in excess of standards; 4) establish group size limit of 12; 5) limit parking

availability; 6) a combination of the above; or, 7) initiate revision of this plan and seek public input to reassess these standards and or implement more direct controls.

BLM will seek (especially if a new airport is constructed between Jean and Primm) opportunities with the Federal Aviation Administration, Clark County Department of Aviation, and other officials to encourage routing overflights, such as low level approach and departure routes, to airspace away from the two Wilderness areas.

- **Establish group size.**

A group size limit of 12 may be established based on visitor encounter levels (see above). A group size of 12 will be established if monitoring indicates more than two groups over 12 individuals per month and, on more than 5 percent of trail length, either trail standards are not met or surface impacts (including new foot worn hiking paths) in need of stabilization or rehabilitation are identified. Group permits will be required only for commercial activities allowed under the following section for managing guiding and outfitting.

- **Adopt policies for recreational riding and pack stock animals.**

Recreational riding and pack stock animals will be limited to trails and washes to avoid creation of new trails and damage to vegetation that may occur as a result of cross country riding. Cross country use of recreational riding or pack stock off of trails will not be permitted except for members of a hunting party in possession of a valid hunting license and tag, and in pursuit of big game during hunting season. Overnight camping or lengthy daytime stops will be allowed if recreational riding or pack stock animals are picketed or highlined in a wash of adequate size for the number of animals

without trampling vegetation. Species of domestic animals known to have the potential to transmit disease causing catastrophic or chronic mortality to native wildlife will be prohibited. Grazing recreational riding or pack stock animals will not be permitted. Feeding will be limited to packed in and certified weed free feed; pellets will be encouraged.



Blackbrush Trail

- **Establish policy for guides and outfitters.**

Commercial guiding will be permitted for: 1) big game hunting, limited by the number of big game hunting tags issued for the area by the Nevada Department of Wildlife; 2) academically oriented organizations whose primary purpose is education about wilderness or environmental education; and 3) organizations whose service is primarily for the support of people with disabilities. Other guiding services will not be permitted. Except for big game hunting guides, guiding activities will be permitted on an infrequent basis not to exceed two guided trips per month; regularly scheduled guiding will not be permitted. Guides will be provided with wilderness ethics information to provide to clients. Commercial guiding requires issuance of a recreation permit.

- **Use of signs.**

The Wilderness boundary will be identified by fiberglass Wilderness signs at key locations. Wilderness boundary signs at trail entry points may be larger wooden signs that state the name of the Wilderness and generally be more pleasing to the eye. Signboards will be placed at trailheads with wilderness and natural resources interpretive information. Other access points may have small signboards to provide wilderness, natural resources, and regulatory information. Directional signs to the Wilderness will not be placed on major roads or highways so as not to draw in additional use from visitors who otherwise were not intending to drive to the Wilderness.

Kiosks will be placed on the outskirts of Jean at the intersection of Knight Ranch Road and Las Vegas Boulevard and on the access road near the prison. These two kiosk locations will be in conjunction with the Jean/Roach Lakes Special Recreation Management Area. Of particular importance on the kiosks will be posting advance notice of OHV race closures adjacent to the South McCullough Wilderness that restrict driving to or from the wilderness trailheads and access points during races. Race closure information will be posted on the kiosks and on the BLM internet site two weeks prior to races to provide ample notice that ingress and egress will be restricted.

Within the Wilderness areas, directional wooden posts two feet tall will be placed at trail intersections and points where the trail enters and exits a wash. At trail intersections, posts will also identify the trail terminus. Arrows or names will be milled into the wood.

- **Off-site visitor information**

Basic information about the Wilderness areas (for example, safety, leave-no-trace, sensitive resources, and some location information) will be provided in brochures, on the BLM website, and on BLM Surface Management Edition maps. In addition, a Wilderness specific map will be produced by BLM with trails, descriptions, and interpretive information. Only those springs identified or named on USGS maps will be labeled on BLM produced maps, with the addition of North Railroad Spring which will also be labeled. Wilderness ethics, Leave-No-Trace, and interpretive information will be included on maps. Although not within the control of BLM management, various information may be made available by non-BLM sources such as guide books. When possible, BLM will provide information to authors in an effort to assure privately provided information is compatible with this plan. BLM will also coordinate with the US Geological Survey to remove, from future USGS map printings, vehicle routes depicted within Wilderness boundaries.

- **Removal of structures and installations.**

Structures and installations will be removed if they are not historically significant, are not the minimum necessary for administration of the area as wilderness, or are not associated with a grandfathered use or valid existing right. If spring developments are not left in place the spring will be rehabilitated to a naturally functioning state providing surface water. If surface water would be lost, the facility may be maintained if it would promote healthy, viable, and more naturally distributed wildlife populations. Pending cultural

analysis for historical significance the following will be removed:

- 1) The corral at North Railroad Spring. The corral is not necessary for administration of the wilderness, is no longer used as a part of livestock grazing operation, and is not initially thought to have historical significance.
- 2) The easternmost 860 feet of the Lucy Gray pasture fence. The fence could be relocated to serve the same function and better define the wilderness.
- 3) Troughs at Badger Springs and Bathtub Spring. The troughs are not necessary for the administration of the wilderness, and are not authorized for use by livestock.



McClanahan South Well

- 4) The remains of a well; the McClanahan South Well. In addition, the well shaft, a potential safety hazard, will be plugged and abandoned. A hole was dug into the ground approximately seven feet deep and seven feet in diameter. A structure was built over the hole to support a windmill. Surface water is found at the bottom of the hole during much of the year. The hole is steep walled at the back and more gently slopes at the front. The hole will be naturalized at the ground

surface around the edge of the hole to reduced the potential for material sloughing in, visitors slipping in, and to mimic the surrounding slope and shape of the topography. The well was long ago abandoned and neither the well or associated development is necessary for administration of the wilderness, is not used as a part of livestock grazing operation, and is not initially thought to have historical significance.

- **Removal of human effects.**

Wilderness Rangers will be given instruction on the identification of human artifacts 50 years old or greater. Items that are clearly and obviously less than 50 years old will be considered unattended personal property or refuse. Unattended personal property not associated with an active camp, including geocaches, will be removed by BLM personnel upon encountering it and held at the BLM office. If possible, the owner of the personal property will be contacted for pick up from the BLM office. In the case of a geocache, BLM will also request the geocache sponsor to remove the site listing from the internet. The summit register on McCullough Mountain will not be removed as it is casual use and does not affect visitor use patterns. Human effects for which questions of age exist will be photographed for further consideration by the archeologist. Prehistoric artifacts will not be disrupted. Pending cultural analysis the following will be removed:

- 1) Refuse near the McClanahan South Well, except for the "Walking Box" trough which will be retained to interpret past activities in the area.
- 2) An abandoned vehicle in the Wee Thump Joshua Tree Wilderness. Vehicle will be cut up and removed by wheeled cart, or helicopter.

- **Rehabilitation of disturbances.**

Twelve miles of former vehicle trails in the South McCullough Wilderness and one mile in the Wee Thump Joshua Tree Wilderness, those not designated as a trail or retained as a foot worn hiking path, will be rehabilitated. Active rehabilitation will occur at sections visible from key observation points while other sections will be left to rehabilitate naturally. Where soils are compacted, the surface may be loosened with hand tools anywhere along the rehabilitated route. Adequate water drainage will be provided throughout. An unquantified number of miles of vehicle route in washes will rehabilitate naturally.



Access road to large prospect site northwest of North Railroad Spring

Two prospecting dig areas in the South McCullough Wilderness will be actively rehabilitated. Scattered prospect sites including adits and trenches in the southwest corner of the Wee Thump Joshua Tree Wilderness will be filled or collapsed pending determination of mining claim validity and wildlife inventory. Gates may be installed and the adits left intact if found to provide important wildlife habitat. The topography of tailings piles and depressions will be naturalized to make them mimic the surrounding slope and shape.



Adit in Wee Thump Joshua Tree Wilderness

Active rehabilitation will include visually obscuring the surface disturbance by breaking up compaction, “planting” dead vegetation collected nearby the site, and scattering rock to mimic the form and texture of the surrounding landscape. Hand tools will be used for the work. This will help prevent continuing human caused disturbance and will eventually be replaced by live vegetation through natural recruitment. Seeding or planting live vegetation may also be utilized in those sites where there is a poor likelihood of native vegetation recruitment, or a high likelihood of infestation by a noxious weed. Native species, with preference for local genetic stocks, will be used exclusively, and will be designed to mimic the local species diversity. Active rehabilitation of the prospecting sites, or any future disturbance that involves digging (for example fire line construction) will include recontouring to mimic existing slopes. The large prospects northwest of North Railroad Spring will be re-contoured to mimic and blend slopes to natural appearance (but not necessarily to exact pre-disturbance contour) with a bulldozer or excavator. The adits in the Wee Thump Joshua Tree Wilderness may be collapsed or filled using a bulldozer or excavator. For the location of reclamation actions see the Proposed Action alternative maps in the Environmental Assessment on pages 45 and 46.

- **Wildlife relocation.**

Transplants (i.e., removal or reintroduction of terrestrial wildlife species) may be permitted if necessary: (1) to perpetuate or recover a threatened or endangered species; or (2) to restore the population of indigenous species eliminated or reduced by human influence. Sites and locations outside of the Wilderness areas will be utilized first, and if not available, transplants may be made to or from the Wilderness areas in a manner compatible with the wilderness character of the area.

Only the species of animal whose indigenous range includes the South McCullough or Wee Thump Joshua Tree Wilderness areas will be considered for relocation into the Wilderness areas. When a species is in need of augmentation in the Wilderness areas, and until such time as the population is thriving on its own, BLM will consult with the Nevada Department of Wildlife in taking actions to suspend or reduce activities contributing to the condition until such time as the population is self sustainable. In furtherance of the values of these Wilderness areas to the larger region, and when a species is sufficiently in excess of its viable population level in the Wilderness areas, wildlife relocation from the Wilderness areas may be approved to restore the population of the species at indigenous habitat elsewhere where long-term measures to mitigate the conditions affecting the species have been implemented.

Relocation activities may be supported by motorized equipment or transport where it is the minimum necessary for the administration of the area as Wilderness. Staging will occur outside the Wilderness boundary. Timing will consider visitor use of the area and will normally be scheduled during periods when visitor use is low (for example, weekdays). In order to inform

visitors of impending activity, relocation days will be posted on the BLM web site two weeks in advance of activity.

- **Wildlife water developments.**

New water developments may be permitted only when essential to preserve the wilderness resource and is necessary to maintain the local indigenous wildlife population where human activity has caused loss of water within the local population's indigenous range, and an artificial water source cannot be located outside the Wilderness areas to achieve the same purpose. Construction, maintenance, and water replenishment activities may be supported by motorized equipment or transport where it is the minimum necessary for the administration of the area as Wilderness. If approved, developments will be visually minimized and may not utilize trucked in water. Wildlife water developments will not be approved on the slopes of McCullough Mountain where conflicts with visitors ascending the peak may occur. Inspection and maintenance of facilities will take place by non-motorized means except for major maintenance requiring large parts or tools which cannot be transported by foot or pack stock.

- **Prevention and control of non-native plants.**

The management ideal is to sustain only native species in the Wilderness areas. Activities prone to spreading non-native species will not be permitted, or will be mitigated to make spread unlikely. Monitoring for non-native plants will occur on an annual basis. Where non native plants are found, emphasis will be placed on controlling small infestations, plants likely to spread and displace native plants, or plants that may disrupt ecosystem function.

The BLM's noxious weed classification system will also be consulted in setting control priorities. If effective control or eradication is possible, control practices will be prioritized in the following order: 1) grubbing with hand tools if plants will not resprout and where infestations are of a size manageable by small hand crews; 2) herbicides applied by backpack or horsepack equipment where grubbing is not effective; 3) biological control agents approved by the Animal and Plant Health Inspection Service (APHIS) where infestations are of such size that eradication is not feasible; or 4) herbicides applied with motorized equipment where control is feasible, control impacts are quickly and readily rehabilitated, and the infestation is of such size that herbicide cannot be effectively applied without motorized equipment. Selection of the control method will be based on its effectiveness as determined by plant biology and the minimum tool and impact to the wilderness resource. If herbicides are necessary, those approved for use on BLM lands may be used according to other existing requirements. Reseeding control areas with native species will be incorporated where local seed sources are not adequate for natural recruitment.

- **Research and monitoring.**

The Wilderness areas will be identified as one of the priority areas in the Las Vegas Field Office area for conducting basic and specific inventory, monitoring, and research. Data will be collected in a manner consistent with section 4(c) of the Wilderness Act. Proponent will be required to provide a copy of the findings to BLM. Those research proposals that do not contribute to improved management of the area as wilderness will not be permitted if they can be accomplished outside the Wilderness areas.

- **Fire suppression.**

In the short term, fire management objectives in the Pinyon Woodland zone will be to continue to hold 90 percent of fires to 25 acres or less and 600 acres burned within a ten year period. To allow natural ecological process to have a greater role in the Wilderness areas, fires burning in the Pinyon Woodland zone will not be fought aggressively when the fire does not threaten human life or property, or threaten to cause unnatural impacts to wilderness characteristics. Appropriate Management Response (AMR) range from monitoring, confinement, initial attack, suppression/extinguishment or a wildfire suppression with multiple strategies. AMR will be determined based on site factors including fuel loading and fire behavior while ensuring the safety of firefighters and the public; the protection of private property will also be considered. In the long term, following completion of a fire plan, fire will be allowed to create natural disturbance and affect successional states where human life or property are not threatened. In order to meet this long term objective, a plan of wildland fire use for wilderness resource benefits will be prepared to define safety, operations, monitoring, and management of natural fire events in the Wilderness areas.

In the lower elevation tortoise zones fire management objectives will be to hold 90 percent of all fires to 15 acres in the Tortoise – Moderate Density zone and hold 90 percent of all fires to 10 acres in the Tortoise – Piute / Eldorado Valley ACEC zone. These ecosystems are not fire adapted. The presence of non-native annual grasses increases fire intensity, rate of spread, and fire frequency. This in turn displaces native vegetation and leads to more dense annual grasses. The condition can perpetuate and intensify itself seriously reducing native

vegetation and the habitat to native wildlife it provides. Fires will be fought aggressively in the tortoise zones, but utilizing techniques that employ suppression standards necessary to stop the fire with the minimum adverse impact on wilderness characteristics. Aerial fire suppression resources including helicopters, air tankers and Single Engine Air Tankers are preferred (but require Field Manager Approval). Within the Wee Thump Joshua Tree Wilderness, aerial dropped retardant will be used as ordered by the Incident Commander without additional authorization required. Minimal Impact Suppression Tactics (MIST) and a policy of no motor vehicles will be used unless necessary to protect human life or property, or wilderness characteristics (including desert tortoise). Motorized vehicles and earth moving equipment may be used (with Field Manager Approval) to protect natural resources by stopping large escaped fires that threaten to convert the plant community from native vegetation to dominance of non-native vegetation. Fire suppression guidelines are listed in Appendix C. All actions deemed necessary by the Incident Commander to protect firefighter and public safety are authorized.

- **Fire prevention.**

Campfires will be prohibited in the South McCullough Wilderness as a part of local fire closure restrictions when fire risk is greatest. Local Fire closure restriction dates vary but normally include June, July, and August. Campfires will be prohibited year-long within the boundary roads of the Wee Thump Joshua Tree Wilderness to reduce the potential for human caused fires. Car campsites will be removed and rehabilitated within boundary roads to reduce risk of escaped campfires burning into Wilderness areas. Camping and campfires outside of

boundary roads, including at the corral immediately off Highway 164, will be permitted to continue, when not under a fire closure restriction. A fuel break within the 100 foot non-wilderness strip between the Wee Thump Joshua Tree Wilderness boundary and Highway 164 will be maintained by assuring rehabilitation of vegetation following highway shoulder work. Rehabilitation will include planting desirable vegetation to reduce the potential for dominance of more flammable annual grasses.

- **Fire rehabilitation.**

Active rehabilitation work will occur in situations necessary to stabilize soil to prevent damage to downstream human life or property, or to prevent the site becoming dominated by an exotic plant species. Active rehabilitation with hand tools will also occur to obscure fire lines with rock or brush. If earth moving bulldozers or equipment are used to construct fire lines, the same type of equipment will be used as needed for recontouring before the equipment is released from the fire. Otherwise, all rehabilitation will be limited to natural rehabilitation (see rehabilitation guidelines earlier in this section).

- **Livestock grazing structures and installations.**

The corral near North Railroad Spring will be removed. The range developments known as McClanahan South Well will be plugged and abandoned and the adjacent fences, troughs, and other remnants removed.

If the grazing permittee voluntarily relinquishes the grazing permit for the Jean Lake Allotment in the South McCullough Wilderness, and closure of the allotment is approved, the existing exclosures at North



North Railroad Spring

Railroad Spring, Badger Springs, Bathtub Spring, and McClanahan South Well will be removed. Developed springs will be rehabilitated to natural appearance and function unless: 1) the development is demonstrated as necessary to provide surface water necessary to promote healthy, viable, and more naturally distributed wildlife populations; 2) the development is a component of a valid use of a private water right; or 3) the development is the minimum needed for administration of the area as wilderness. Spring developments that will not be removed include North Railroad Spring (except for removal of the exclosure), Granite Spring, and Donte Spring. All developments will be removed from Badger Springs, Bathtub Spring, and Mesquite Spring. If other spring developments are discovered, they will be analyzed separately. A portion of the Lucy Gray pasture fence (approximately 880 feet of the easternmost end) will be moved out of the Wilderness to the Wilderness boundary (perpendicular to its present alignment). The eastern gate in the Lucy Gray pasture fence will be permanently closed and a walk through for hikers or horseback riders provided. If grazing of livestock continues in the Jean Lake Allotment, the following developments within the South McCullough Wilderness will be retained, modified, or added. North Railroad Spring will continue to be

authorized for use by livestock at a new trough installed below the existing trough. The riparian enclosure fence will be enlarged, and a fence walkthrough installed to allow for persons to pass through for casual use. Granite Spring will continue to be authorized for use by livestock and a trough, head box, and riparian enclosure fence will be installed. Livestock watering will be authorized at Dry Seep and a trough, head box, and riparian enclosure fence will be installed. Enclosure fences at Badger Springs, Bathtub Spring, and McClanahan South Well will be enlarged and the existing water troughs removed. Enclosure fences will be installed at lower and upper Pentstemon Springs and McCullams Spring. All enclosures will be of sufficient size and design so as to provide safe wildlife access, protect the greatest extent of riparian habitat, and prevent cattle access. Spring developments will be designed so that wildlife will continue to have access to water while denying access to cattle when cattle are not authorized for grazing within the pasture. Witness posts and cages will continue to be installed for monitoring utilization of key forage species and monitoring long term trend.

- **Use of motor vehicles for livestock management.**

Routine cattle management and infrastructure inspections will be accomplished by foot or horseback (including cross country use of horses) as needed. Motorized vehicles may be authorized for major maintenance when transporting equipment or parts which cannot be accomplished by foot or pack stock. Each occurrence must have written authorization and utilize a route least impacting to the wilderness resource. In the case of an emergency, the permittee may be authorized to use motor vehicles with verbal

approval from the Field Manager or Acting Field Manager. These conditions will be stated as a term or condition of the grazing permit.

- **Control of cattle.**

If grazing continues in the Jean Lake Allotment, the following will be implemented to control unauthorized grazing use in the Wilderness outside of the Jean Lake Allotment. Should livestock owned and controlled by the permittee be found within areas closed to grazing, the unauthorized grazing use will be acted upon as follows:

1. Unauthorized livestock, identified by BLM, shall be collected by the permittee and ear tagged with tags provided by BLM (if not previously ear tagged with a BLM provided tag). The ear tag shall be placed into the right ear with the number facing forward. Photographs showing the brand, earmarks, gender, overall animal coloration pattern, and the presence of an ear tag will be taken by the permittee before the animal(s) can be relocated into the pasture within the Jean Lake Allotment where grazing is authorized. The ear tag number and photographs will be provided by the permittee to the BLM within 14 days following notification by BLM of the occurrence of unauthorized grazing.
2. The permittee will be allotted five days following notification by BLM to collect the animal(s) unauthorized livestock.
3. Any individual animal identified grazing without authorization on three occasions will be permanently removed from the herd and not authorized to be returned to the Jean

Lake Allotment. BLM may identify livestock by ear tag number, ear marks, brand, color, gender, or other markings.

4. Willful trespass action may be initiated when BLM documents a fourth occurrence of unauthorized grazing use on the part of an individual animal.

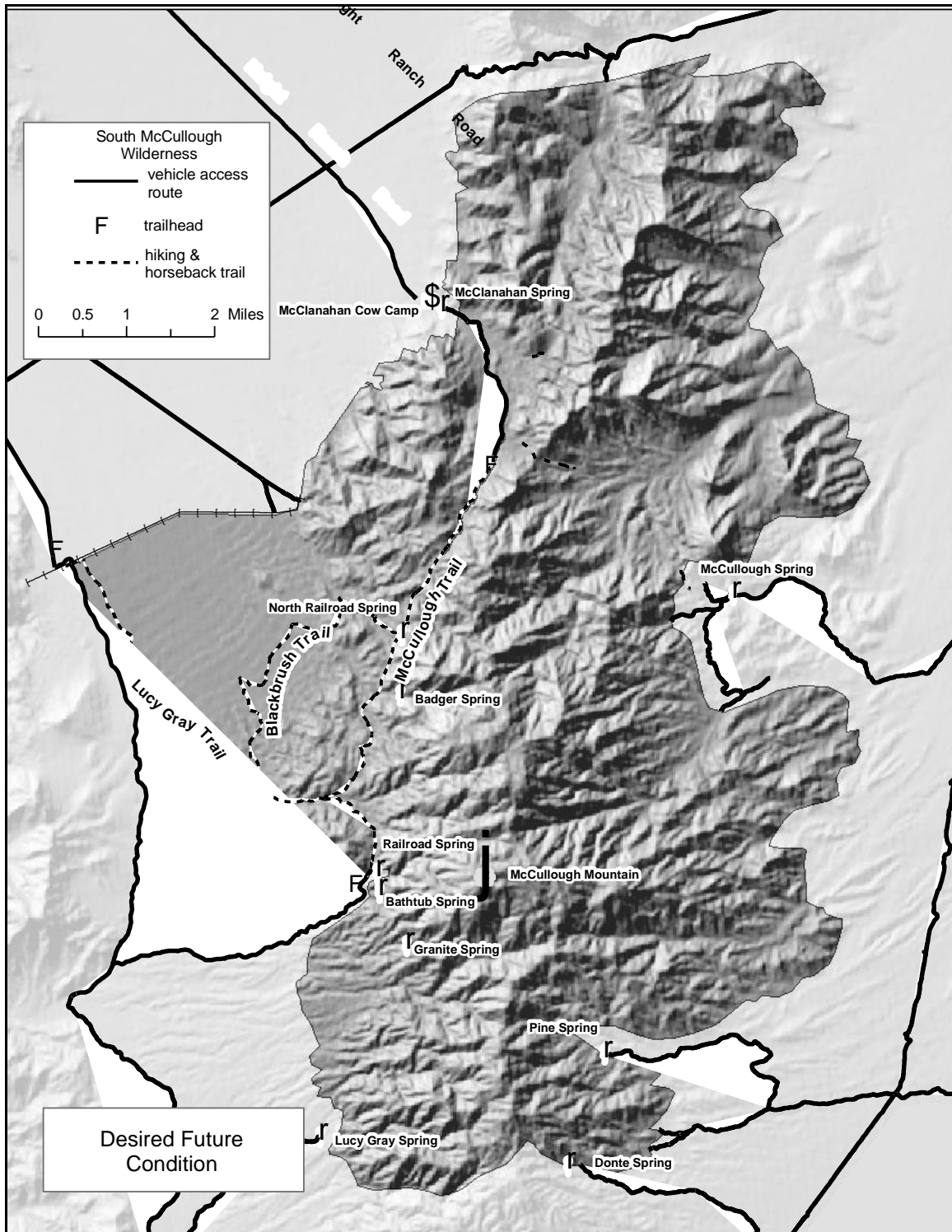
These will be new terms and conditions that will be incorporated into any future grazing permit for the permittee on the Jean Lake Allotment.

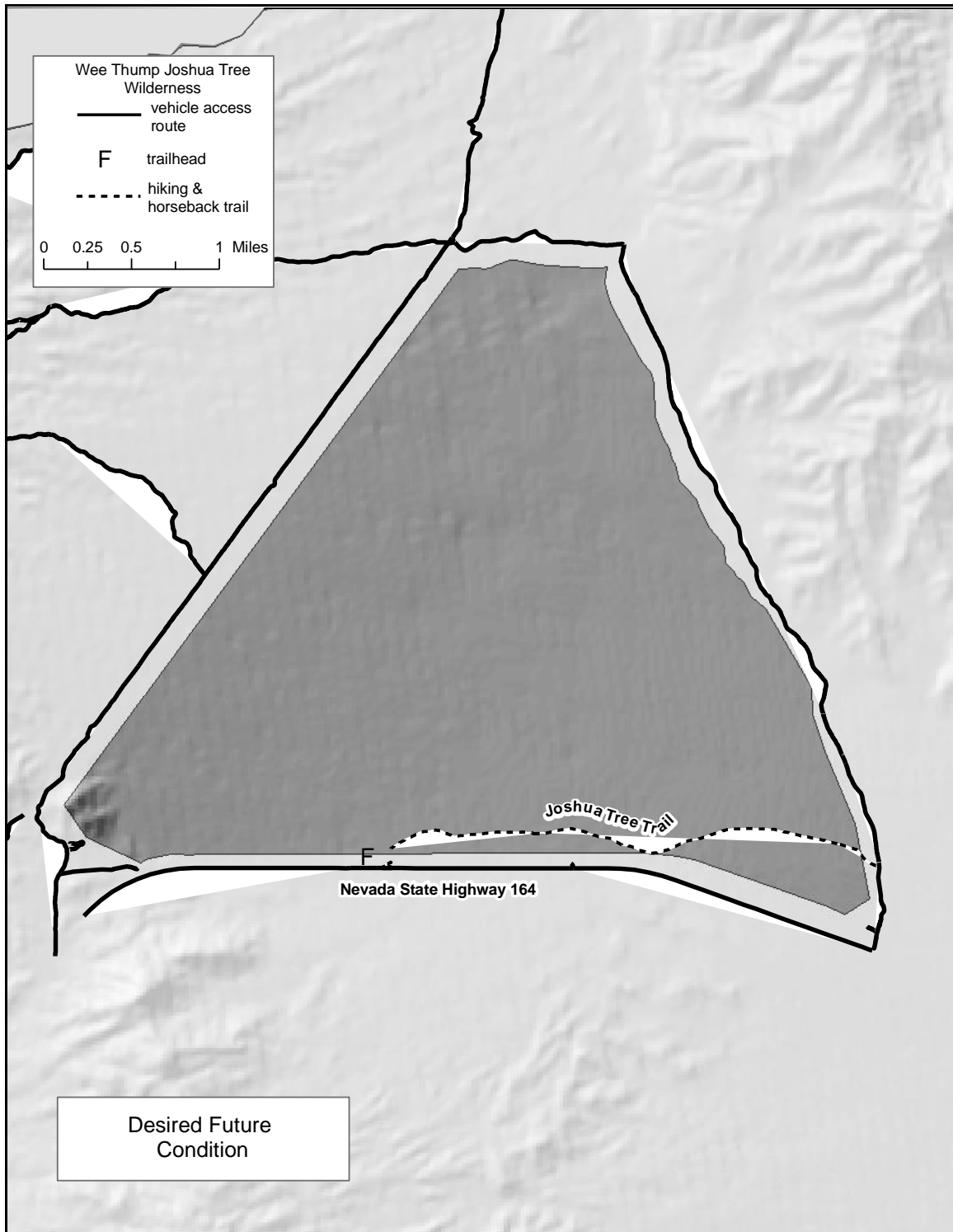
- **Water Rights.**

BLM will seek to acquire additional water rights within the Wilderness areas under Nevada state water law. Water rights will only be used to sustain riparian habitat, provide water to wildlife, or support recreation. Existing water rights may be purchased from willing sellers, or shared with other agencies through cooperative agreement. BLM may also file application for additional water rights where water in excess of existing permitted rights can be shown to exist.

- **Private land.**

To assure continued public access near McCullough Spring, a 40-acre parcel of private land outside the Wilderness will be acquired if the landowner is willing to sell at a price determined by appraisal and funding can be secured.





Monitoring

In the previous sections of this plan, management objectives for the two Wilderness areas are established and management actions designed to achieve those objectives are described. The monitoring section tracks the outcome of those activities on four qualities of wilderness character, not just the quality of the wilderness the activity was primarily intended to address.

Wilderness character encompasses a combination of biophysical, experiential, and symbolic elements as described by four principle qualities defined in the Wilderness Act. The combination of these qualities distinguish wilderness from all other lands. These four qualities are of equal importance to one another and are defined as:

- Untrammeled – wilderness is unhindered and free from modern human control or manipulation.
- Outstanding opportunities for solitude or a primitive and unconfined type of recreation – wilderness provides opportunities for people to experience solitude or primitive and unconfined recreation, including the values of inspiration and physical and mental challenge.
- Undeveloped – wilderness is substantially without permanent developments or modern human occupation.
- Natural - wilderness ecological systems, being affected primarily by the forces of nature, retain their primeval character and

influence substantially free from the effects of modern human civilization.

A single activity is likely to have an effect on several qualities, even though the purpose of the activity is to affect only one quality of wilderness character. A single activity may improve one quality of wilderness character while diminishing another. For example an activity such as weed control, which is intended to restore natural conditions over the long term, may diminish the untrammeled condition of the wilderness in the short term. These two separate outcomes, the effectiveness on improving “natural” and the side effect of diminishing “untrammeled,” will be monitored separately.

Since activities may affect several qualities, separate activities undertaken for different purposes, may cumulatively diminish one of the same qualities of wilderness character. For example, a trail might be designated to control visitor impacts on vegetation. In the same vicinity a fence may be constructed around a spring to protect it from damage by feral horses. Though the two activities are unrelated, both activities have an effect on the “undeveloped” quality of wilderness character. Monitoring the effects of single activities to multiple qualities of wilderness character will improve understanding of our understanding of the effects upon wilderness character in combination and over time.

Effects of intentional, unintentional, and unauthorized activities will all be captured under the monitoring system. The monitoring program will provide a greater understanding of the overall and

specific condition of each Wilderness and will alert Wilderness managers of the need to initiate corrective actions, or adapt management to new situations. Monitoring will also provide Wilderness Managers with more complete information which will improve the evaluating of future proposed activities. The monitoring will not be used to compare these Wilderness Areas with other Wilderness Areas in the National Wilderness Preservation System, but to track the conditions and changes within the wilderness itself.

The following monitoring will assist the BLM in tracking and improving the untrammelled condition of the Wilderness areas:

- A log of all annual management and other activities that control or manipulate flora, fauna, soils, water, or natural disturbance factors present in the Wilderness will be maintained in each area's permanent wilderness file. A description, location, purpose, and expected outcome of each activity will be documented. Activities that may be tracked include:
 - Rehabilitation projects
 - Fire suppression activities
 - Treatments of non-native vegetation
 - Relocation of wildlife
 - Alteration of water sources
 - Periods of livestock grazing

The following monitoring will assist the BLM in preserving the outstanding opportunities for solitude or a primitive and unconfined type of recreation:

- A log of the sights and sounds of civilization will be maintained in each area's permanent wilderness file. A description and location of the activity inside or outside the Wilderness areas will be documented.
- A log of all regulations or restrictions on primitive and unconfined visitor use occurring in the Wilderness areas will be maintained in each area's permanent wilderness file. A description of the regulation and its purpose will be documented.
- Visitor use encounters on designated trails will be monitored through one or more of the following methods. Opportunities for visitor sign in and comment may be available at the trailheads. Public comments received at the trail head, by mail, or by e-mail will be periodically compiled and reviewed. Automated visitor counters may be located at trailheads. In addition, a Wilderness Ranger will visit trailheads at least once a month to record the number of parked vehicles and collect written comments (if any) or record trail counter data. The Wilderness Ranger will hike each trail at least twice a year to record the number of encounters and trail conditions.

- Visitor use encounters off-trail are unlikely to exceed acceptable limits and will not be as frequently monitored, however, any off-trail encounter by a Wilderness Ranger will be recorded, as well as any public comments or volunteer reports regarding off-trail encounters or conditions, and entries from the summit register. An important focus for monitoring off-trail use will be to identify the development of informal use trails. A review of published or internet provided information will also be used to identify areas of new popularity and then inspected in the field. Where monitoring identifies elevated use patterns, and especially if violations are detected, Law Enforcement Ranger patrols will be increased in those areas. Trail counters may also be used where elevated use patterns are detected.
- The Wilderness areas will be monitored at boundary roads or access points once a month by Law Enforcement Rangers to detect vehicle entry violations. Low level overflight monitoring may be used to assist in detecting motor vehicle violations in progress, or to identify other activities undetected by ground monitoring.
- Trail conditions will be monitored by the Wilderness Ranger to assure standards established in this plan are maintained. Tread measurements and photos will be taken at

several monitoring points identified for each trail and recorded electronically by a Global Positioning System (GPS). Photo and measurement monitoring will take place as needed at locations observed to be in the early stages of deterioration or high use.

- Campsites will be recorded by the Wilderness Ranger to assure compliance with plan standards. Campsites will be recorded by GPS and photos taken to track long term trends.

The following monitoring will assist the BLM to track and, where possible, improve the undeveloped and natural appearance of the wilderness:

- A log of all the developments, structures, and facilities present in the Wilderness areas will be maintained in each area's permanent wilderness file. A description, location, purpose, and expected outcome of the feature will be documented.
- All former vehicle trails that are converted to trail use or rehabilitated will be checked in the field at least twice a year to assure they are not continuing to receive motorized use and if rehabilitated, the success of rehabilitation. If unauthorized vehicle use continues, modifications as described in the plan will be made to the closure.

The following monitoring will assist the BLM in preserving the naturalness and primeval character and influence of the wilderness:

- A log of all known human alterations to the ecosystem will be maintained in each area's permanent wilderness file. A description and location will be documented or referenced. Conditions that may be tracked include:
 - Non-native species
 - Threatened, endangered and sensitive species
 - Species no longer present in the wilderness.
 - Air quality
 - Presence, abundance, and distribution of native species
 - A log of natural disturbances will be maintained in each area's permanent wilderness file. A description and location will be documented or referenced. Activities that may be tracked include:
 - Fire
 - Flood
 - Insect or disease outbreaks
 - Monitoring for noxious weeds will occur at least once a year, especially focused at springs and on trails or in washes receiving regular visitor use.
 - Wildlife monitoring will occur predominately by Nevada Department of Wildlife according to the agency's established protocol. The BLM
- Wilderness Rangers will also record wildlife sightings, especially for nesting raptors, bighorn sheep, mule deer, Gila monster, desert tortoise, kit fox, bobcat, cougar, and pinyon jays. Monitoring or research by other entities may occur according to protocol described in the plan.
- Vegetation monitoring for livestock utilization will be done in accordance with the Jean Lake Allotment Management Plan. Standards for protection of rangeland resources are identified in the Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration in the BLM's Grazing Regulations. On BLM lands in southern Nevada, the area specific standards and guidelines are set in the Mojave – Southern Great Basin Standards and Guidelines. Monitoring for cattle presence will be incorporated into all other monitoring tasks.
 - Findings, or a reference to the findings, from inventory, monitoring, and research projects completed in the Wilderness areas will be included in the wilderness file. Other known research outside the wilderness but applicable to the understanding of the wilderness ecosystem may be referenced.
 - Monitoring to assess the affect of recreation (including dogs) on wildlife will occur where feasible monitoring methods are developed to track recreation

caused changes in wildlife use patterns within the two Wilderness areas.

- Monitoring will be included to account for changes to the natural fire cycle occurring from introduced annual grasses. A monitoring site from the pinyon woodland zone in the South McCullough Wilderness will be added to the existing Field Office wide Fine Fuel Loading Inventory. This additional monitoring will aid fire management in determining Appropriate Management Response on an annual basis. For fires having greater potential to convert native vegetation to unnatural annual grass dominated vegetation, fire management will have better information to adjust response to the most active suppression response compatible with the fire management objectives and procedures for the area.

Plan evaluation

All field reports, photographs, and monitoring data will be maintained in the official wilderness files at the BLM's Las Vegas Field Office. The plan will be revised when the management actions prescribed no longer meet the wilderness management objectives, or when a change in the existing situation warrants revised management. The need for revision will be reviewed every five years. If the decision is made to revise the plan it will be accomplished with public participation. Minor revisions such as typographical or cartographical

errors will be made by inserting an errata sheet.

Plan Implementation Sequence

Management of the South McCullough and Joshua Tree Wee Thump Wilderness areas will be carried out in accordance with this plan under the direction of the Las Vegas BLM Wilderness staff. Other BLM staff and volunteers may be called upon for support or subject expertise. Four types of management activities may occur: 1) ongoing activities carried out through the life of the plan; 2) activities that will be implemented as special projects at the beginning of the plan; 3) management activities triggered by changes in conditions as detected through monitoring; and, 4) activities that may be proposed in the future for which general guidance exists in the plan, or that may not be addressed in the plan. The following list shows the priority sequence for accomplishing management activities of the plan. The actual implementation could be altered based on funding and staff availability outside the control of this plan.

Ongoing activities

- Maintenance of boundary signs
- Trail and vehicle access point maintenance
- Wilderness monitoring
 - Visitor use monitoring
 - Natural resource monitoring
 - Trail condition monitoring
 - All other wilderness character monitoring
- Visitor information dissemination

Special projects (in order of priority)

- Archeological, botanical, and threatened and endangered species clearances to support plan implementation.
- Write and publish supplemental rules for all visitor use standards established in the plan as specified under 43 CFR 8365.1-6.
- Rehabilitation
 - Former vehicle routes
 - Campsites on interior of Wee Thump Joshua Tree boundary roads
 - Prospecting disturbance
- Vehicle access parking points established
- Trail designation
 - Trail preparation (improvement of sections not currently within standards)
 - Trail marking (directional posts)
 - Trailhead development
- Signing
 - Trailhead and vehicle access point wilderness information signs
 - Off site kiosks

- Removal of unnecessary structures and installations
- Livestock developments
 - Construction, modification, or removal of developments as appropriate.
- Fire management plan

Changing conditions

- Rehabilitation
 - New visitor impacts
 - Fire rehabilitation
- Trail reconstruction or stabilization
- Management of social conditions
 - Visitor use regulations
 - Group size
- Fire suppression
- Non-native plant control

Potential future proposals

- Water rights acquisition
- Guiding permits
- Wildlife projects
- Research on natural resources
- Property acquisition
- Mining development

Future proposals not analyzed within this document will require separate Environmental Assessment and 30 day public notification.

Environmental Assessment # NV-050-2005-219

Purpose and Need

The South McCullough and Wee Thump Joshua Tree Wilderness areas were designated by Congress on November 6, 2002. BLM policy is to manage wilderness areas under the guidance of a Wilderness Management Plan. There is a need to 1) identify the conditions and opportunities which will be managed for within the wilderness areas; 2) manage access to and in the wilderness areas; and 3) mitigate potential impacts by anticipating future recreation demands, identifying interpretive opportunities, and establishing resource protection standards. The purpose of the plan is to create specific management guidance addressing resources and activities existing in the wilderness to preserve the areas wilderness characteristics. Wilderness characteristics are cumulatively identified as the untrammeled quality, outstanding opportunities for recreation or a primitive form of recreation, undeveloped character, naturalness and primeval character, and special features. The purpose is also to identify actions that will be implemented upon adoption of the plan, and those that may be implemented in the future if changes in resource conditions occur.

Location

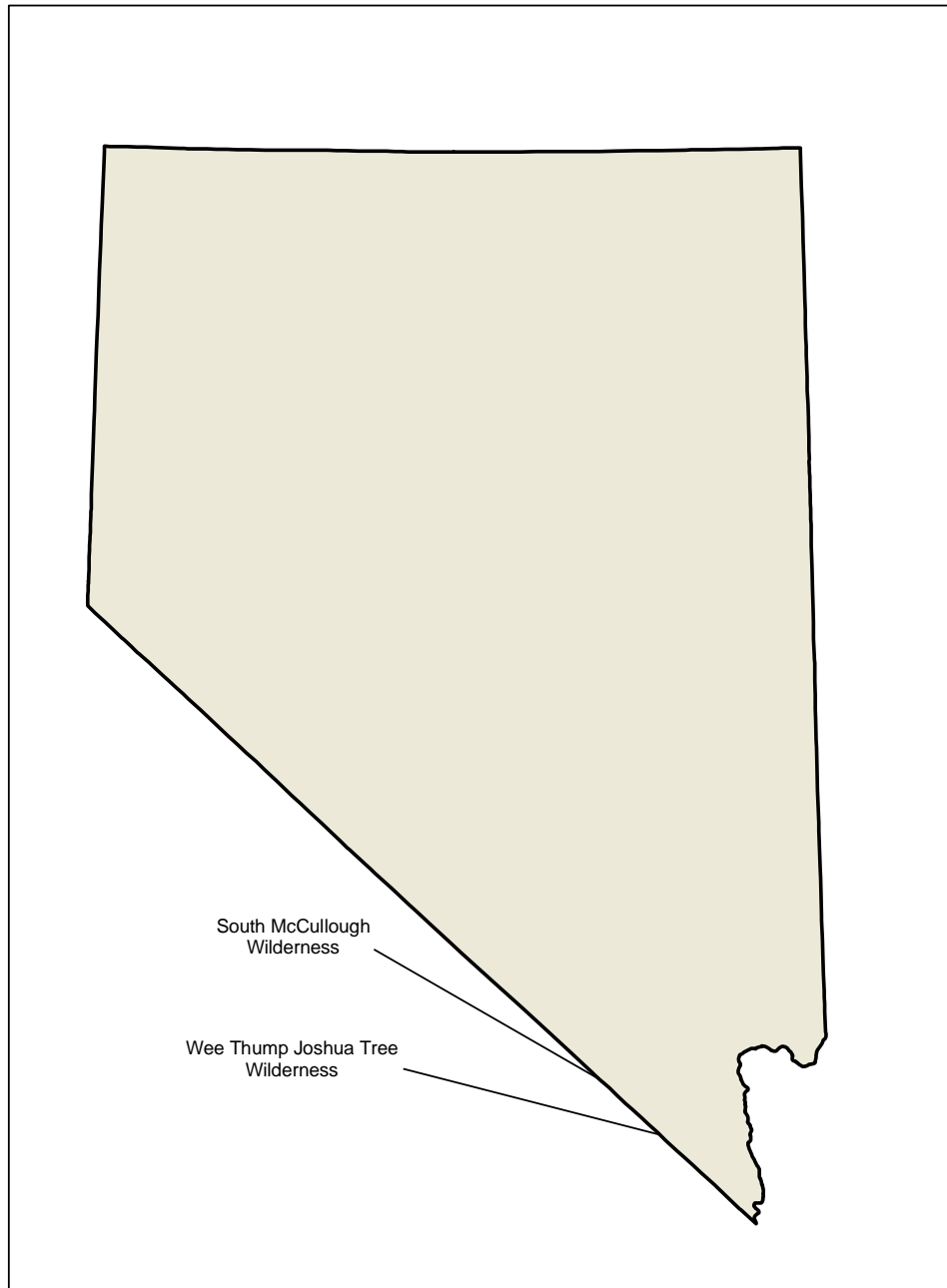
The South McCullough and Wee Thump Joshua Tree Wilderness areas are located approximately 30 miles south of Las Vegas and ten miles west of Searchlight in Clark County, Nevada and approximately two miles from one another. The Wilderness areas are located in portions of T. 25 S., R. 61 E.; T. 26 S., Rs. 60 & 61 E.; T. 27 S., Rs. 60, 61, & 62 E.; and T. 28 S., Rs. 61 & 62 E.; MDM. See location map on next page.

Conformance with Land Use Plan

The proposed action and alternatives are consistent with the Las Vegas Resource Management Plan (RMP) and Final Environmental Impact Statement (EIS) (1998).

Relationships to Statutes, Regulations, or Other Plans

The plan conforms to the Wilderness Act of 1964 (Public Law 88-557), The Federal Land Policy and Management Act of 1976 (Public Law 94-579), the Clark County Conservation of Public Land and Natural Resources Act of 2002 (Public Law 107-282), the National Environmental Policy Act of 1969 (public Law 91-190), Grazing Guidelines (House Report No. 101-405, Appendix B), and Wildlife Management Guidelines (House Report No. 101-405, Appendix B). The plan is in conformance with 43 CFR Part 6300 – Management of Designated Wilderness Areas, and BLM Manuals 8560 - Management of Designated Wilderness Areas, and 8561 – Wilderness Management Plans.



Description of Proposed Action and Alternatives

Alternative 1 (Proposed Action)

Trails

The following existing trails would be designated and converted to hiking and equestrian trails and displayed on BLM maps. In the South McCullough Wilderness: 1) McCullough Trail (McClanahan Spring to Railroad Spring); 2) Lucy Gray Trail (Jean Lake water haul and corral to McCullough Trail); and, 3) Blackbrush Trail (Lucy Gray Trail to McCullough Trail). In the Wee Thump Joshua Tree Wilderness: 1) Joshua Tree Trail (along southern boundary). If not designated as a trail or retained as a foot worn hiking path, former vehicle trails would be rehabilitated.

Trails would total approximately 16.5 miles in the South McCullough Wilderness plus 2.6 trail miles in wash are not in the Wilderness. Trail sections in washes would total 9.2 miles. In the Wee Thump Joshua Tree Wilderness would be 3 miles of trail, none in washes. Trails may be maintained or rerouted where they are causing or anticipated to cause damage to wilderness character including cultural or biological resources. Trail rerouting would be limited to short sections within the cultural and botanical clearance area (200 foot wide alignment) for the trail. Approximately eight sections in the existing trail are known to be in need of immediate relocation. Most of these are about 20 feet, the longest section being 175 feet. Trail rerouting would be for the purpose of avoiding sensitive resources or steep terrain. Examples for trail maintenance or rerouting includes: 1) slopes greater than 15 percent beyond which potential for excessive soil erosion and trail deterioration by foot traffic is high. Very short steep sections may be retained where reinforcement with native rock will prevent soil erosion. Rolling dips or rock enforced water bars would be utilized to reduce water caused soil erosion. 2) Where trail braiding exists or is beginning, the most appropriate trail may be selected by improving its tread surface or trimming back vegetation. The alternate trail(s) would be obstructed and rehabilitated with rock or native vegetation. 3) Maintenance would strive to limit trail width to 24 inches, and not exceed 36 inches except along precipices where it may be wider for safety. Width standards would be applied to segments longer than 50 feet. Tree limbs or fallen trees may be cleared within 10 feet high and 4 feet to either side of trail (cutting limbs at trunk) or, where practical, minor trail relocation to avoid the tree. 4) Trails may be rerouted to avoid damage to natural or cultural resources.

Approximately 0.3 miles (0.2 acres) of new trail would be constructed to complete connections near Badger Springs and near a highway pullout in the Joshua Tree Wee Thump Wilderness. The following new trail segments will be constructed: 1) Below Badger Springs to improve trail connectivity on the McCullough Trail and bypass (by 0.25 mile) and focus attention away from the spring (approx 0.1 mile new trail); and 2) At highway 164 to connect an existing highway pullout to the Joshua Tree Trail (approx 0.1 mile new trail). No other new trails would be constructed or designated.

In addition to designated trails, foot worn hiking paths may be available for use upon discovery by visitors. Foot worn hiking paths would not be marked on the ground,

displayed on BLM maps or brochures, or normally receive maintenance. Creation of new foot worn hiking paths would be discouraged. Where present, foot worn hiking paths would be expected to be brushy, rough, and of erratic grades making them more challenging to traverse than a designated trail. An inventory of foot worn hiking paths would be maintained and monitored for resource damage. Field monitoring would identify paths that have substantial footprints, lead to camping areas, have cut vegetation, or other evidence of use. Flat bottomed sandy washes would not be defined as foot worn hiking paths. Field monitoring would be combined with a periodic review of private sector published route descriptions. As new foot worn hiking paths are discovered, they would be evaluated for impact to wilderness character (including cultural or biological) and the management objectives of this plan. Where possible new foot worn hiking paths would be rehabilitated (see the description of rehabilitation guidelines below). Some may lead to popular sites and receive regular human use, or may be used by wildlife or livestock to such an extent that rehabilitation may not be practical. Where foot worn hiking paths are retained but the trail is found to be unstable or causing an adverse impact, the trail may be rerouted, improved, or maintained in the problem section only (following the standards for trail condition and maintenance defined for designated trails) to make the trail compatible with protecting resources while retaining its more challenging hiking quality. An Environmental Assessment would be prepared before taking action on newly established or presently unidentified foot worn hiking paths. Examples of adverse impacts to wilderness character include excessive erosion (for example becoming a gully or a tread surface difficult to maintain a footing on), creating excessive impact (such as trail braiding or widening), or unacceptable impact to a particular resource. Two existing trails would be retained and monitored as foot worn hiking paths. These include the non-wash portions of the Walking Box Trail (1.1 miles McClanahan Spring to McCullough Spring) and McClanahan Trail (0.25 miles McClanahan Spring to McCullough Pass). Monitoring for new foot worn hiking paths would specifically occur at McCullough Mountain, Badger Springs, all vehicle access points, and at those routes closed through this plan.

No interpretive trails would be designated. General interpretive information for natural resources, wilderness, and recreation would be located on kiosks, maps, and brochures for the two wilderness areas.

Vehicle access and trailheads

Three trailheads would be designated at the South McCullough Wilderness at: 1) McClanahan Spring; 2) Lucy Gray (Jean Lake water haul); and, 3) Railroad Spring. The Wee Thump trailhead would be designated at the Wee Thump Joshua Tree Wilderness at the Highway 164 pullout. The McClanahan Spring trailhead would have parking for 8 vehicles plus 3 vehicles with trailers. Trailer parking would be at or near McClanahan Camp depending on whether or not the Jean Lake Allotment permittee voluntarily relinquishes the grazing permit. Car parking would be located at the disturbance area before the route enters wash. The road through McClanahan camp would be restored to public use. If grazing continues in the allotment, the road would be fenced to separate visitors from the cattle operations at McClanahan Camp. Between McClanahan camp

and the trailhead, pull-outs would be constructed to provide for vehicles passing in opposite directions. Vehicle use would be limited to the trailhead access road; motor vehicles would not be permitted beyond the trailhead to enhance equestrian and hiking recreation, and reduce parking and passing congestion. No other roads would be improved for the purpose of facilitating Wilderness access. The Knight Ranch Road to the McCullough Trailhead, road to Colada Well, and road over McCullough Pass would receive Level 3 maintenance: as needed maintenance of drainage and road prism, and sight distance. The south boundary of the Wee Thump Joshua Tree Wilderness is a paved, state maintained highway (Highway 164). All other access roads would receive Level 2 maintenance: Minimum maintenance which may include obstruction removal, maintenance of drainage facilities, and minimum maintenance of road prism. The Railroad Spring trailhead would have parking for 3 vehicles. The Lucy Gray trailhead would be located at or near the Jean Lake water haul site. It would accommodate parking for 3 vehicles plus 2 vehicles with trailers. A walkthrough would be constructed in the fence adjacent to the trailhead. A wire fence approximately 0.3 miles long would be constructed perpendicular to the exiting fence and parallel to the boundary road to reduce vehicle trespass. The fence would include a walk and ride through opening on the Lucy Gray Trail. The Highway 164 Wee Thump trailhead would remain the existing highway turnout. It would not be signed on the highway to attract incidental visitation. Post or rock barriers would be placed as needed at trailheads to limit parking area disturbance or prevent motorized entry into the Wilderness.

Vehicles may access the South McCullough Wilderness at 9 additional points. These vehicle access points would be defined by creating turn arounds at suitable locations at or before the Wilderness boundary to help direct vehicles from continuing into Wilderness. Turn arounds would be located at already established sufficient size pull outs when present within ¼ mile of the Wilderness boundary, otherwise, new turn arounds would be created. New turn arounds would be placed to avoid cultural and biological sensitive areas. Turn arounds would occupy approximately 0.1 acres having adequate space for 2 vehicles to parallel park without blocking the turn around. Vehicle barriers would be constructed where natural barriers are not adequate to keep vehicles from traveling past the turn around. Barrier design would be prioritized as follows: 1) wilderness sign, berm associated with turn around, small rocks, and or vegetation placement or rehabilitation; 2) large boulders moved by heavy equipment; 3) posts; 4) fence or gates. The first choice would not be practical before considering the next choice. Vehicle access points would be located no less than ¼ mile from springs unless separated by a ridge or similar topographical feature that would minimize disruption to wildlife. Vehicles could access the South McCullough Wilderness anywhere along 3 boundary roads or on the entire boundary of the Wee Thump Joshua Tree Wilderness anywhere on its boundary roads, but no distinct access points would be provided. Maps would provide information of established access points to reduce the potential for new access points developing along boundary roads. Existing parking areas on the interior of the Wee Thump Joshua Tree Wilderness boundary roads would be rehabilitated. Parking pull-outs and camping areas would be limited to the exterior of the boundary roads to reduce the potential for vehicles or escaped campfires spreading into the wilderness.

Camping

Camping would be allowed except within 300 feet of springs or water troughs or within a fenced enclosure. Campfires would be prohibited in the Wee Thump Joshua Tree Wilderness – camp stoves would be allowed. Campfires would be allowed in the South McCullough Wilderness except under regional fire hazard restrictions, but visitors would be encouraged to use only camp stoves. Low Impact techniques would be encouraged. If more than two campsites (as identified by a campfire ring) are located within a quarter mile of each other, the campsite that is the least impact to resources (such as a newly established site, would be naturalized and the campfire ring removed. Campfire rings closer than 300 feet to water or at sites with other sensitive resources (for example a cultural site or area with rare plants) would also be removed. Camping would not be allowed for more than 14 days.

Solitude

The west central portion of the South McCullough Wilderness and the entire Wee Thump Joshua Tree Wilderness would retain opportunities for solitude. Encounters with other visitors would be expected on the hiking trails through those areas. Encounters with other groups more than ½ mile from the wilderness boundary would be no more than eight per day exceed on four days per year. Outside sights and sounds would be encountered on most trips. The remainder of the South McCullough Wilderness would have outstanding opportunities for solitude where encounters with other visitors more than ½ mile from the wilderness boundary would be rare, two encounters per day exceeded only on three days per year, and outside sights and sounds rare or of short duration. Management actions that may be initiated if standards are exceeded include: 1) educate visitors of wilderness ethics and considerate manners; 2) inform visitors of non-wilderness hiking and equestrian opportunities in the region; 3) reduce the availability of BLM brochures or maps that may specifically promote the use of the area; 4) limit parking lot size; or, 5) initiate revision of this plan to seek public input to reassess these standards and or implement more stringent controls.

Group size

No group size would be established, unless monitoring indicates more than three groups over 12 individuals per month and trail standards are not met or new foot worn hiking paths in need of stabilization are identified on more than 5 percent of trail length. In such case, group size would be limited to 12.

Recreational riding and pack stock animals

Recreational riding and pack stock animals would be limited to trails and washes. Overnight or lengthy stays would be allowed if riding or pack stock animals are picketed or highlined in a wash of adequate size for the number of animals without trampling vegetation. Cross country riding or pack stock animal use would be allowed off trail for a hunter (including members of the hunting party) in possession of a valid hunting license and tag, and in pursuit of big game during hunting season. No use of goats or sheep as pack stock would be permitted. Other than incidental browsing, riding and pack stock animals would be limited to packed in certified weed free feed – pellets would be encouraged.

Guides and outfitters

Commercial guiding would be permitted for: 1) big game hunting, limited by the number of big game hunting tags issued for the area by the Nevada Department of Wildlife; 2) academically oriented organizations whose primary purpose is education about wilderness values or environmental education; and 2) organizations whose service is primarily for the support of people with disabilities. Other guiding services would not be permitted. Except for big game hunting guides, guiding activities would be permitted on an infrequent basis not to exceed two guided trips per month; regularly scheduled guiding would not be permitted. Guides would be provided with wilderness ethics information to provide to clients.

Signs

The Wilderness boundary would be identified by fiberglass Wilderness signs at key locations. Wilderness boundary signs at trail entry points may be larger wooden signs that state the name of the Wilderness and would generally be more decorative. Signboards would be placed at trailheads with wilderness and natural resources interpretive information. Other access points may have small signboards to provide wilderness, natural resources, and regulatory information. Kiosks would be placed on the outskirts of Jean where Knight Ranch Road intersects Las Vegas Boulevard and on the access road near the prison. These two kiosk locations would be in conjunction with the Jean Lake OHV area. Of particular importance for the kiosks would be information regarding closure of lands adjacent to the wilderness during OHV races which restrict access to the South McCullough Wilderness. Closure information would be posted two weeks prior to the closure and on the BLM internet site to provide ample notice that ingress and egress will be restricted and to avoid overnight visitors being stuck behind the closure. Within the wilderness, directional wooden posts two feet high with arrows milled in to indicate direction would be placed at points where the trail enters and exits the wash. At trail intersections signs would also indicate the trail's destination.

Offsite information

Basic information about the wilderness would be provided in brochures, on BLM's website, and on BLM Surface Management Edition maps. In addition, a Wilderness specific map would be produced by BLM with trails, descriptions, and interpretive information. Wilderness ethics, Leave-No-Trace, and interpretive information would be included on maps. Only those springs identified or named on USGS maps would be labeled on BLM produced maps with the addition of North Railroad Spring will also be labeled. Various information may also be made available by non-BLM sources such as guide books. When possible, BLM will provide information to authors in an effort to assure privately provided information is compatible with this plan. BLM would coordinate with USGS to remove vehicle routes from future USGS map printings.

Structures, installations, and other human effects or disturbances

Structures and installations that are not historically significant, are not the minimum necessary for preserving wilderness character, or are not associated with a grandfathered use would be removed. Pending cultural analysis, the following would be removed:

- 1) debris at the proposed McClanahan Trailhead, except for the Walking Box trough which will be retained for the purpose of interpreting past uses of the area.
- 2) An abandoned vehicle in the Wee Thump Joshua Tree Wilderness will be cut up and removed by wheeled cart, or helicopter.
- 3) a corral at North Railroad Spring.
- 4) the easternmost 860 feet of the Lucy Gray pasture fence.
- 5) certain spring developments (see the grazing section for details).
- 6) The remains of a well; the McClanahan South Well. In addition, the shaft, a potential safety hazard, would be plugged and abandoned. The hole would be naturalized to mimic the surrounding topography.

Wilderness Rangers would be given instruction on the identification of human effects 50 years old or greater. Items that are clearly and obviously less than 50 years old would be considered unattended personal property or refuse and removed. This may include gear caches or geocaches. Human effects for which questions of age exist would be photographed for further evaluation by the archeologist. Prehistoric human effects would not be disrupted.

Approximately 12 miles of preexisting road or motorcycle trail in the South McCullough Wilderness and one mile in the Wee Thump Joshua Tree Wilderness would be actively rehabilitated at sections visible from key observation points (see rehabilitation guidelines) while all other sections would be left to rehabilitate naturally (see trail section on foot worn hiking paths). Where soils are compacted, the surface may be loosed with hand tools anywhere along the rehabilitated route. Two prospecting dig areas in the South McCullough Wilderness would be rehabilitated by recontouring to mimic natural slopes. The prospects southeast of McClanahan Spring would be rehabilitated using hand crews. The prospects northwest of North Railroad Spring would be re-contoured with a bulldozer or excavator. Pending determination of mining claim validity and wildlife inventory, several small scattered prospecting digs in the southwestern corner of the Wee Thump Joshua Tree Wilderness would be rehabilitated to mimic natural slopes by filling in adits and trenches or recontouring tailing piles. Rehabilitation will visually obscure the sites with nearby dead vegetation and rock and may include seeding or planting live native vegetation, or allowing natural recruitment of vegetation. Spring rehabilitation would be accomplished in a manner that assures continued surface water availability. If surface water would be lost by removing the facility, the facility may be maintained if it would promote healthy, viable, and more naturally distributed wildlife populations.

Rehabilitation guidelines

Active rehabilitation would include visually obscuring the surface disturbance by breaking up compaction, “planting” dead vegetation collected nearby the site, and scattering rock to mimic the form and texture of the surrounding landscape. Hand tools would be used for the work. This would help prevent continuing human caused disturbance and would eventually be replaced by live vegetation through natural recruitment. Adequate water drainage would be provided throughout. Seeding or planting live vegetation may also be utilized in those sites where there is a poor likelihood of native vegetation recruitment, or a high likelihood of infestation by a

noxious weed. Native species will be used exclusively, and whenever possible local genetic stocks, and will be designed to mimic the local species diversity.

Wildlife relocation

Wildlife relocation may be approved to restore the population of an indigenous species eliminated or reduced by human influence. Only animal species whose indigenous range includes the South McCullough or Wee Thump Joshua Tree Wilderness areas would be considered for relocation into the wilderness. When a species is in need of augmentation in the Wilderness areas, and until such time as the population is thriving on its own, BLM will consult with the Nevada Department of Wildlife regarding implementation of Sec208 (e) of the Clark County Conservation of Public Land and Natural Resources Act. When viable populations of a species are exceeded in the wilderness, wildlife trapping and removal from the wilderness may be approved to restore the population of the species in other previously occupied habitat where human influence has reduced the population and long term corrections have been implemented. Activities would take place outside wilderness as a first choice. Activities may be supported by motorized equipment or transport where it is the minimum necessary to accomplish the goal. Staging would occur outside the wilderness boundary. Timing would consider visitor use of the area by generally scheduling work to periods when visitor use is low (for example, weekdays). Information on collection days would be posted two weeks in advance on the BLM web site. Should conditions warrant considering lethal or nonlethal control measures of indigenous or non-indigenous animal species in the Wilderness areas, a separate analysis would be required to determine the necessity and stipulations of such an action.

Wildlife water developments

New water developments may be permitted only when essential to preserve the wilderness resource and is necessary to maintain the local indigenous wildlife population where human activity has caused loss of water within the local population's indigenous range, and an artificial water source cannot be located outside the Wilderness areas to achieve the same purpose. Construction, maintenance, and water replenishment activities may be supported by motorized equipment or transport where it is the minimum necessary for the administration of the area as Wilderness. If approved, developments will be visually minimized and may not utilize trucked in water. Wildlife water developments will not be approved on the slopes of McCullough Mountain where conflicts with visitors ascending the peak may occur. Inspection and maintenance of facilities will take place by non-motorized means except for major maintenance requiring large parts or tools which cannot be transported by foot or pack stock. Fenced cattle exclosures and developed water sources at springs would be modified based on the status of the grazing allotment (see livestock grazing elements).

Research and monitoring

The wilderness would be identified as one of the priority areas for conducting basic and specific inventory, monitoring, and research when allocating staffing and funding in the Las Vegas field area. Data would be collected in a manner consistent with section 4(c) of the Wilderness Act. Those research proposals that do not contribute to improved

management of the area as wilderness will not be permitted if they can be accomplished outside the wilderness.

Noxious weeds

The management ideal would be to prevent or eliminate all exotic species from the wilderness. Monitoring for non-native invasive plants would occur on an annual basis. Where non-native plants are found, emphasis would be placed on controlling small infestations, plants likely to spread and dominate over native plants, or plants that may disrupt ecosystem function. The BLM's noxious weed classification system will also be consulted in setting priorities. If effective control or eradication is possible, control practices would be prioritized in the following order: 1) grubbing with hand tools if plants will not resprout and where infestations are of size manageable by small hand crews; 2) herbicides applied by backpack or horsepack equipment where grubbing is not effective; 3) APHIS approved biological control agents where infestations are of such size that eradication is not feasible; or 4) herbicides applied with motorized equipment where control is feasible and desirable but infestation is of such size that herbicide cannot be effectively applied without motorized equipment. Selection of control method would be based on its effectiveness and the impact to the wilderness resource in consideration of plant biology and the minimum tool needed to achieve control. If herbicides are necessary, those approved for use on BLM lands, as specified, may be used. Reseeding control areas with native species would be incorporated where local seed sources are not adequate for recolonization (see rehabilitation guidelines). Activities would not be permitted in the wilderness that are prone to establishing exotic (non-native) species, unless mitigated to make spread unlikely.

Livestock grazing facilities

The corral near North Railroad Spring would be removed. The McClanahan South well would be plugged and abandoned and the fences, troughs, and other remnants removed.

If the grazing permittee voluntarily relinquishes the grazing privileges and permit for the Jean Lake Allotment in the South McCullough Wilderness, and closure of the allotment is approved, then all exclosures would be removed. In addition, developed springs would be rehabilitated to natural appearance and function unless: 1) the development is demonstrated as necessary to provide surface water to promote healthy, viable, and more naturally distributed indigenous wildlife populations; 2) the development is a component of a valid use of a private water right; or 3) the development is the minimum needed for administration of the area as wilderness. Spring developments that would be kept include North Railroad Spring (except for removal of the exclosure), Granite Spring, and Donte Spring. All developments would be removed from Badger Springs, Bathtub Spring, Mesquite Spring, and McClanahan South Well. If other spring developments are discovered, they will be analyzed separately. A portion of the Lucy Gray pasture fence (approximately 860 feet of the easternmost end) would be moved to the Wilderness boundary (perpendicular to its present alignment). The eastern gate in the Lucy Gray pasture fence will be permanently closed and a walk through for hikers or horseback riders provided.

If grazing of livestock continues in the Jean Lake Allotment the following facilities would be authorized: 1) water developments within the South McCullough Wilderness located at North Railroad Spring and Granite Spring would continue to be authorized for use by livestock; 2) witness posts and cages would continue to be installed as part of routine utilization and trend monitoring; 3) a livestock watering trough would be installed at Dry Seep and Granite Springs, and the riparian areas would be fenced; 4) the trough at North Railroad Spring would be moved down slope, the riparian enclosure fence would be enlarged, and a fence walkthrough would be installed to allow for persons to pass through for casual use; 5) enclosures at Badger Springs, Bathtub Spring, and McClanahan South Well would be enlarged and the water troughs removed; and 6) enclosures would be installed at lower and upper Pentstemon Springs and McCullams Spring. All enclosures would be of sufficient size and design so as to provide wildlife access without watering animals becoming trapped by predators. Livestock troughs will be designed so that water may be turned off when the pasture is not active while continuing to provide wildlife water within the enclosure.

Control of cattle within the allotment

If grazing continues in the Jean Lake Allotment, the following would be implemented to control unauthorized grazing use in the Wilderness outside of the Jean Lake Allotment. Should livestock owned and controlled by the permittee be found within areas closed to grazing, the unauthorized grazing use would be acted upon as follows:

1. Unauthorized livestock, identified by BLM, shall be collected by the permittee and ear tagged with tags provided by BLM (if not previously ear tagged with a BLM provided tag). The ear tag would be placed into the right ear with the number facing forward. Photographs showing the brand, earmarks, gender, overall animal coloration pattern, and the presence of an ear tag would be taken by the permittee before the animal(s) can be relocated into the pasture within the Jean Lake Allotment where grazing is authorized. The ear tag number and photographs would be provided by the permittee to the BLM within 14 days following notification by BLM of the occurrence of unauthorized grazing.
2. The permittee would be allotted five days following notification by BLM to collect the animal(s) unauthorized livestock.
3. Any individual animal identified grazing without authorization on three occasions would be permanently removed from the herd and not authorized to be returned to the Jean Lake Allotment. BLM may identify livestock by ear tag number, ear marks, brand, color, gender, or other markings.
4. Willful trespass action may be initiated when BLM documents a fourth occurrence of unauthorized grazing use on the part of an individual animal.

These would be new terms and conditions and incorporated into any future grazing permit for the permittee on the Jean Lake Allotment.

Access to grazing facilities

Motorized vehicles may be authorized for major maintenance when transporting equipment or parts that cannot be accomplished by foot or pack stock. Each occurrence

must have written authorization which will utilize the least impacting route (for example, driving in a wide wash). Routine cattle management would be accomplished by foot or horseback. In the case of an emergency, the permittee may be authorized to use motor vehicles by verbal approval from the Field Manager or Acting Field Manager.

These would be new terms and conditions and incorporated into any future grazing permit for the permittee on the Jean Lake Allotment.

Fire Management Objectives

Pinyon Woodland: In the short term, fire management objectives would be to hold 90 percent of fires to 25 acres or less with a decadal maximum objective of 600 burned acres. Appropriate Management Response (AMR) range from monitoring, confinement, initial attack, suppression/extinguishment or wildfire suppression with multiple strategies. AMR will be determined based on site factors including fuel loading, fire behavior while ensuring the safety of firefighters, and the public; the protection of private property will also be considered. In the long term, following completion of a fire plan, fire would be allowed to create disturbance and affect successional states where human life or property are not threatened. In order to meet this long term objective, a plan of wildland fire use for resource benefits would be prepared to define safety, operations, monitoring, and management of natural fire events in the wilderness.

Tortoise – Moderate Density: Hold 90 percent of all fires to 15 acres.

Tortoise – Piute / Eldorado Valley ACEC: Hold 90 percent of all fires to 10 acres.

Fire prevention

Campfires will be prohibited in the South McCullough Wilderness as a part of local fire closure restrictions when fire risk is greatest. Local fire closure restriction dates vary but normally include June, July, and August. Campfires will be prohibited year-long within the boundary roads of the Wee Thump Joshua Tree Wilderness to reduce potential human caused fires. Car campsites will be removed and rehabilitated within boundary roads to reduce risk of escaped campfires burning into Wilderness areas. Camping and campfires outside of boundary roads, including at the corral immediately off Highway 164, would be permitted to continue, when not under a fire closure restriction. A fuel break within the 100 foot non-wilderness strip between the Wee Thump Joshua Tree Wilderness boundary and Highway 164 would be maintained by assuring rehabilitation of vegetation following highway shoulder work. Rehabilitation will include planting desirable vegetation to reduce the potential for dominance of more flammable annual grasses.

Fire suppression

Fires would be fought aggressively in the tortoise zones, but utilizing techniques that employ suppression standards necessary to stop the fire with the minimum adverse impact on wilderness characteristics. Minimal Suppression Tactics (MIST) would be applied, and no motor vehicles would be used unless necessary to protect human life or property, or wilderness characteristics (including desert tortoise) especially where needed to protect natural resources by stopping large vegetation converting fires. Within the Wee Thump Joshua Tree Wilderness, aerial dropped retardant would be used as ordered

by the incident commander without additional authorization required. To allow natural ecological process to have a greater role in the wilderness fires burning in the Pinyon zone would not be fought aggressively when fire does not threatened human life or property, or threaten to cause unnatural impacts to wilderness characteristics.

Fire rehabilitation

Active rehabilitation work would occur in situations necessary to stabilize soil to prevent damage to downstream human life or property, or to prevent the site becoming dominated by an exotic species. Active rehabilitation with hand tools would also occur to obscure fire lines with rock or brush. If earth moving bulldozers or equipment are used to construct fire lines, the same equipment would be used as needed for recontouring before the equipment is released from the fire. Otherwise, all rehabilitation would be limited to natural rehabilitation (see rehabilitation guidelines).

Equipment caches or geocaches

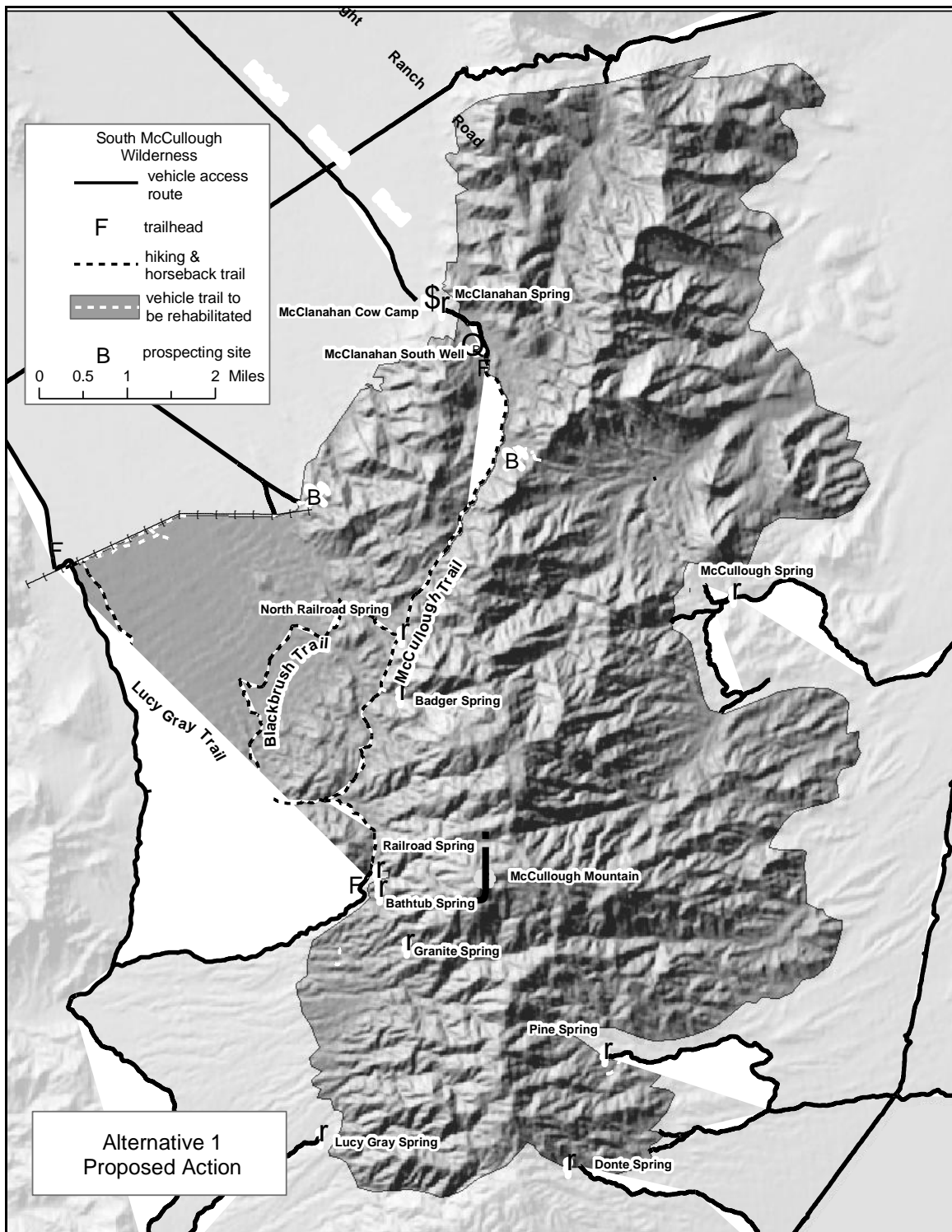
Unattended personal property not associated with an active camp would be removed by BLM personal upon encountering it. In the case of a geocache, BLM would remove the unattended personal property and request the geocache sponsor to remove the site listing from the internet. The summit register on McCullough Mountain would be left in place as it is casual use and does not affect use patterns.

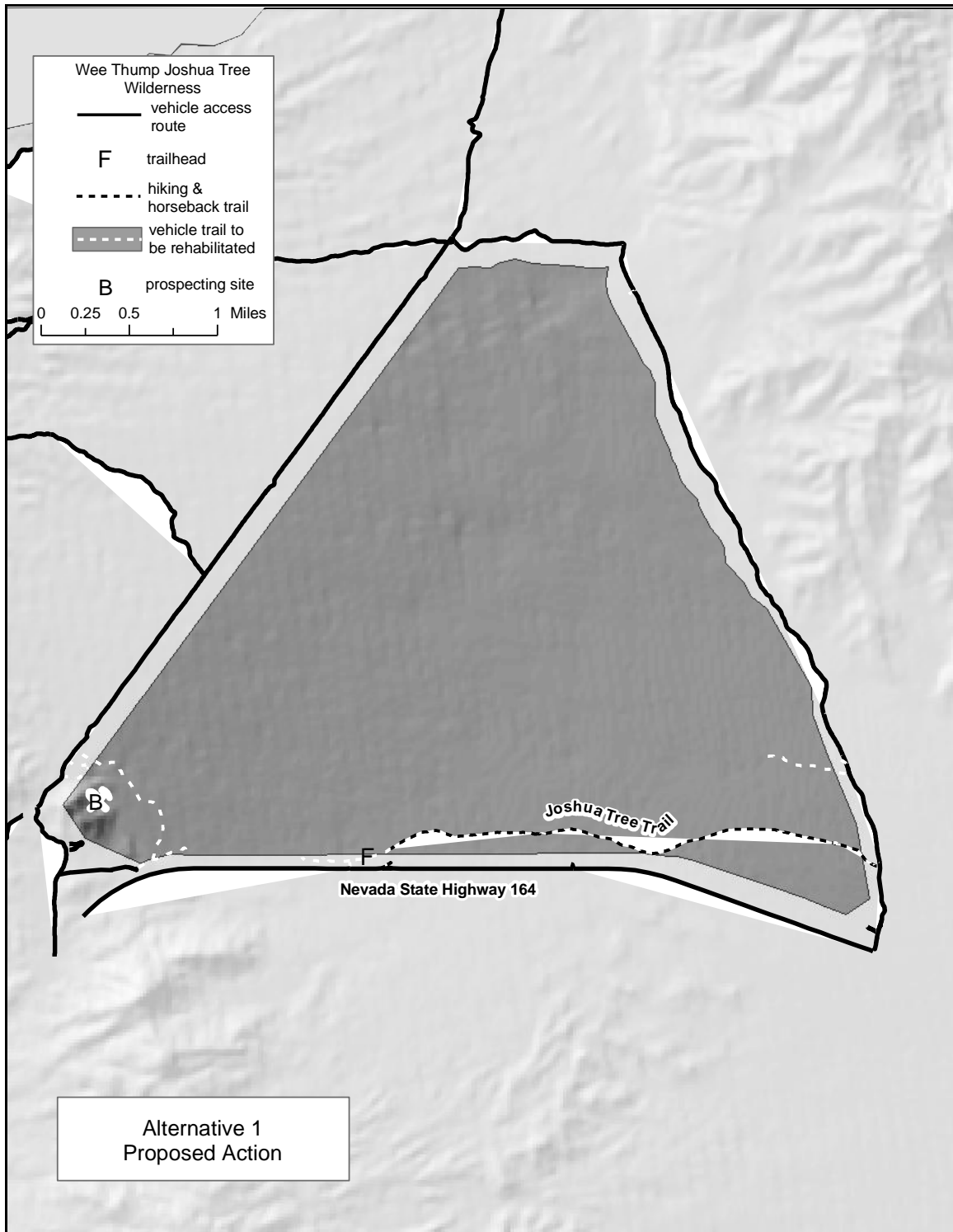
Water Rights

BLM would seek to acquire additional water rights within the Wilderness areas under Nevada state water law. Existing water rights may be purchased from willing sellers, or shared with other agencies through cooperative agreement. BLM may also file application for additional water rights where water in excess of existing permitted rights can be shown to exist. Water rights would only be used to sustain riparian habitat, provide water to wildlife, or support recreation.

Private land

To assure continued public access near McCullough Spring, a 40-acre parcel of private land outside the Wilderness would be acquired if the landowner is willing to sell at a price determined by appraisal, and funding can be secured.





Alternative 2 (Human activity least evident)

Trails

No recreation or interpretive trails would be constructed or designated. Former vehicle trails within the Wilderness would be rehabilitated. Recreation would occur without designated trail support, but some foot worn hiking paths may be present and available for use by those who come across them or could learn of them if included in guidebooks. For example game or cattle trails and certain areas that may receive higher visitation use which would not be possible to rehabilitate. An inventory of foot worn hiking paths would be maintained and monitored for resource damage. Field monitoring would include identification of paths that have substantial footprints, lead to camping areas, have evidence or cut vegetation, or other use and would be combined with a periodic search for published route descriptions. Flat bottomed sandy washes would not be considered to be foot worn hiking paths. As new foot worn hiking paths are discovered, they would be evaluated for impact to wilderness, including cultural and biological resources. Foot worn hiking paths would not normally receive maintenance, however, if found to be adversely impacting wilderness character (including cultural or biological) the trail may be rehabilitated to end use (when possible), rerouted, maintained, or improved in the problem section to make the trail compatible with protecting resources, and would require preparation of an Environmental Assessment, except for closing the trail by camouflaging (see rehabilitation section). Examples of adverse impacts to wilderness character include excessive erosion (for example becoming a gully or a tread surface difficult to maintain a footing on), creating excessive impact (such as trail braiding or excessive widening to avoid an obstacle), or unacceptable impact to a particular resource. Foot worn hiking paths would be discouraged, but where present would be expected to be brushy, rough, and of erratic grades making them more difficult to traverse than a designated trail.

Vehicle access and trailheads

Vehicles would access the South McCullough Wilderness at 11 points or anywhere along three boundary roads. No trailheads or vehicle access routes would be designated or defined except turn arounds would be created at or before the Wilderness boundary to help direct vehicles from continuing into Wilderness. Turn arounds would occupy approximately 1.1 acres. The selected location would have adequate space for two vehicles to parallel park without blocking the turn around. Vehicle barriers would be constructed where natural barriers are not adequate. Barrier design would be prioritized as follows: 1) berm associated with turn around, small rocks, and or vegetation placement or rehabilitation; 2) large boulders moved by heavy equipment; 3) posts; 4) fence or gates. The first choice would not be practical before considering the next choice. At McClanahan Spring vehicles would bypass the ranching facility by entering a wash to the north, then continue through narrow sections to a small turn around limited to about three vehicles at the wilderness boundary at the end of a cherry stem. Visitors would be warned of narrow wash with limited opposing vehicle passing, parking, and turn around opportunities. Vehicles would access the Wee Thump Joshua Tree Wilderness anywhere on its entire boundary along boundary roads, but no distinct access points would be provided. Existing parking areas on interior of the Wee Thump Joshua

Tree Wilderness boundary roads would be rehabilitated. All parking would be limited to the exterior of the boundary roads to reduce the potential for vehicles or escaped campfires spreading into the wilderness.

Solitude

The west central portion of the South McCullough Wilderness and the Wee Thump Joshua Tree Wilderness would retain opportunities for solitude, but those opportunities would not be outstanding as they are influenced by outside sights and sounds.

Encounters with other visitors in the wilderness would remain low, but no measures to limit encounters would be established. Solitude in Zone 2 of the South McCullough Wilderness would remain outstanding and encounters with other visitors would be rare.

Camping

Camping would be allowed in the South McCullough Wilderness except within 300 feet of springs or water troughs or within a fenced enclosure. Camping would be prohibited in the Wee Thump Joshua Tree Wilderness. Campfires would be allowed in the South McCullough Wilderness except under regional restrictions, but visitors would be encouraged to use only camp stoves. Low Impact camping techniques would be encouraged. Camping would not be allowed for more than 14 days.

Group Size

Group size would be limited to 12.

Recreational riding or pack stock animals

Recreational riding or pack stock animals would be allowed in washes, but not permitted cross country. Overnight camping with riding or pack stock animals would not be permitted in the wilderness. No use of goats or sheep as pack stock animals would be permitted. Riding and pack stock animals would be limited to packed in feed using a bucket or hay bag. Packed in feed would be required to be certified weed free – pellets would be encouraged. Visitors would be encouraged to feed stock animals with certified weed free feed several days prior to visiting the wilderness.

Guides and outfitters

Guide services would only be permitted for academically accredited educational programs who's primary goal is education of their clients about leave-no-trace, wild land values and ethics, or natural history of the area.

Signs

The wilderness boundary would be signed at key access locations including periodic intervals along the boundary roads. Small size signboards would be placed at primary access points to provide wilderness, natural resources, and regulatory information. No directional signs would be placed on the highway.

Offsite information

Basic information about the wilderness would be provided in brochures, on BLM

website, and on BLM Surface Management Edition maps. Various information may also be made available by non BLM sources such as guide books.

Structures, installations, and other human effects or disturbances

Structures and installations that do not qualify for retention because of historical significance, are not the minimum necessary for preserving wilderness character, or are not associated with a grandfathered use would be removed. Pending cultural analysis the following would be removed:

- 1) a corral near North Railroad Spring
- 2) remains of a well; the McClanahan South Well. In addition, the shaft, a potential safety hazard, would be plugged and abandoned.
- 3) the easternmost 860 feet of the Lucy Gray pasture fence.
- 4) certain spring developments (see the grazing section for details).

Wilderness Rangers would be given instruction on the identification of human effects 50 years old or greater. Items that are clearly and obviously less than 50 years old would be considered unattended personal property or refuse and removed. Human effects for which questions of age exist would be photographed for further evaluation by the BLM archeologist. Prehistoric human effects would not be disrupted.

Approximately 17.5 miles (or 6.4 acres) of preexisting passenger vehicle or motorcycle trail would be rehabilitated. Sections visible from key observation points would be actively rehabilitated (see rehabilitation guidelines) while all other sections would be left to rehabilitate naturally (if visitor use does not occur – see trail section on foot worn hiking paths). Two prospecting dig areas of approximately 1.6 acres would be allowed to rehabilitate naturally.

Rehabilitation guidelines

Active rehabilitation would include visually obscuring the surface disturbance by breaking up compaction, “planting” dead vegetation collected nearby the site, and scattering rock to mimic the form and texture of the surrounding landscape. Hand tools would be used for the work. This would help prevent continuing human caused disturbance and would eventually be replaced by live vegetation through natural recruitment. Seeding or planting live vegetation may also be utilized in those sites where there is a poor likelihood of native vegetation recruitment or a high likelihood of infestation by a noxious weed. Native species would be used exclusively, and whenever possible local genetic stocks, and would be designed to mimic the local species diversity.

Wildlife relocation

Only indigenous species would be considered for relocation. Wildlife relocation may be approved to restore the population of an indigenous species eliminated or reduced by human influence. Activities may be supported by motorized equipment where it is the minimum necessary to accomplish the goal. Staging would occur outside the wilderness boundary. Where a species is in need of augmentation, BLM would consult with the Nevada Department of Wildlife to close the area to hunting until such time as the population is self sustainable.

Wildlife water developments

No new water developments would be permitted with one exception. Installation of a water development may be permitted if human activity has caused the loss of water necessary to maintain an indigenous wildlife population within its natural range and an artificial water source cannot be located outside wilderness to achieve the same purpose. Potential water developments would not be augmented with trucked in water. Inspection and maintenance of such facilities would take place by non-motorized means except for major maintenance requiring large parts or large tools. Livestock exclusion fences located at several springs for the benefit of indigenous plants and wildlife would be enlarged to prevent restricting wildlife and causing increased predation. Spring developments would be removed unless necessary to maintain the indigenous wildlife population in its local range.

Research and monitoring

The wilderness would be identified as one of the priority areas for conducting basic and specific inventory, monitoring, and research when allocating staffing and funding in the Las Vegas Field Office area. Inventory, monitoring, and research may generate the need for management actions to preserve the primeval character of the wilderness. Data will be collected in a manner consistent with section 4(c) of the Wilderness Act. Those research proposals that do not contribute to improved management of the area as wilderness would not be permitted if they could be accomplished outside the wilderness.

Noxious weeds

The management ideal would be to prevent or eliminate all exotic species from the wilderness. Where non native plants are found, emphasis would be placed on controlling small infestations, plants likely to spread and displace native plants, or plants that may disrupt ecosystem function. The BLM's noxious weed classification system will be consulted in setting priorities. If effective control or eradication is possible, control practices would be prioritized in the following order: 1) Grubbing with hand tools if plants will not resprout and where infestations are of size manageable by small hand crews; 2) herbicides applied by backpack or horsepack equipment where grubbing is not effective; 3) APHIS approved biological control agents where infestations are of such size that eradication is not feasible; or 4) herbicides applied with motorized equipment where control is feasible and desirable but infestation is of such size that herbicide cannot be effectively applied without motorized equipment. Selection of control method would be based on its effectiveness and the impact to the wilderness resource in consideration of plant biology and the minimum tool needed to achieve control. Reseeding control areas with native species would be incorporated where local seed sources are not adequate for recolonization (see rehabilitation guidelines). Activities would not be permitted in the wilderness that are prone to establishing exotic (non-native) plants.

Livestock grazing facilities

Water developments which would continue to be authorized for use by livestock within the South McCullough Wilderness are located at North Railroad Spring and Granite Spring. Livestock exclosures (which prevent livestock from accessing springs and riparian areas) are located at Badger Springs, North Railroad Spring, and Bathtub Spring.

These enclosures would be enlarged to stop wildlife getting trapped when fleeing a predator and to protect the entire riparian area. Less visually intrusive materials would be used. The corral located near North Railroad Spring would be removed. Facilities at the McClanahan South Well would be removed and rehabilitated. A portion of the Lucy Gray pasture fence (the easternmost ½ mile) would continue to be located in wilderness. Posts and cages would be installed to monitor utilization and trend. Springs not within the active grazing allotment would be rehabilitated to natural appearance and function unless the development is demonstrated as necessary to provide water to maintain the native local wildlife population. Troughs at Badger Springs and Tubbs Spring would be removed.

Control of cattle within the allotment

If grazing continues in the Jean Lake Allotment, the following would be implemented to control unauthorized grazing use in the Wilderness outside of the Jean Lake Allotment. Should livestock owned and controlled by the permittee be found within areas closed to grazing, the unauthorized grazing use would be acted upon as follows:

1. Unauthorized livestock, identified by BLM, shall be collected by the permittee and ear tagged with tags provided by BLM (if not previously ear tagged with a BLM provided tag). The ear tag would be placed into the right ear with the number facing forward. Photographs showing the brand, earmarks, gender, overall animal coloration pattern, and the presence of an ear tag would be taken by the permittee before the animal(s) can be relocated into the pasture within the Jean Lake Allotment where grazing is authorized. The ear tag number and photographs would be provided by the permittee to the BLM within 14 days following notification by BLM of the occurrence of unauthorized grazing.
2. The permittee would be allotted five days following notification by BLM to collect the animal(s) unauthorized livestock.
3. Any individual animal identified grazing without authorization on three occasions would be permanently removed from the herd and not authorized to be returned to the Jean Lake Allotment. BLM may identify livestock by ear tag number, ear marks, brand, color, gender, or other markings.
4. Willful trespass action may be initiated when BLM documents a fourth occurrence of unauthorized grazing use on the part of an individual animal.

These would be new terms and conditions and incorporated into any future grazing permit for the permittee on the Jean Lake Allotment.

Access to grazing facilities

Motorized vehicles may be authorized for major maintenance when transporting equipment or parts which cannot be accomplished by foot or pack stock. Each occurrence must have written authorization. Routine cattle management will be accomplished by foot or horseback. In the case of an emergency, the permittee may be authorized to use motor vehicles by verbal approval from the Field Manager or Acting Field Manager.

These would be new terms and conditions and incorporated into any future grazing permit for the permittee on the Jean Lake Allotment.

Fire Objectives

Pinyon Woodland: In the short term, fire management would continue to hold 90 percent of fires to 25 acres or less with a decadal objective of 600 burned acres. Appropriate management responses would be to suppress, confine, or contain fires to desired areas as determined by on site fire effects and safety to firefighters, the public, and property. In the long term, fire would be allowed to create disturbance and affect successional states where human life or property are not threatened. In order to meet this long term objective, a plan of wildland fire use for resource benefits would be prepared to define safety, operations, monitoring, and management of natural fire events in the wilderness.

Tortoise – Moderate Density: Hold 90 percent of all fires to 15 acres.

Tortoise – Piute / Eldorado Valley ACEC: Hold 90 percent of all fires to 10 acres.

Fire prevention

Campfires would be prohibited in the South McCullough Wilderness along with local fire restrictions when fire risk is greatest. Dates vary but normally include June, July, and August. Campfires would be prohibited year long within the boundary roads of the Wee Thump Joshua Tree Wilderness. Car campsites would be removed and rehabilitated within the boundary roads to reduce risk of escaped campfires burning into wilderness. Camping and campfires outside of boundary roads would be permitted to continue under local fire restrictions.

Fire suppression

Fires would be fought aggressively in the tortoise zones, but utilizing techniques that employ suppression standards necessary to stop the fire with the minimum adverse impact on wilderness characteristics. Minimal Suppression Tactics (MIST) would be applied, and no motor vehicles would be used unless necessary to protect human life or property, or wilderness characteristics (including desert tortoise) especially to protect natural resources by stopping large escaped fires. Fires burning in the Pinyon zone would not be fought aggressively when the fire does not threaten human life or property, or threaten to cause unnatural impacts to wilderness characteristics. Fires in the pinyon zone would be monitored to allow natural ecological process to occur in the wilderness.

Fire rehabilitation

Active rehabilitation work will occur only in situations necessary to stabilize soil to prevent damage to downstream human life or property, or to prevent the site from becoming dominated by an exotic species. Otherwise, all rehabilitation will be limited to natural rehabilitation or obscuring fire lines with rock or brush to prevent them from becoming trails (see rehabilitation guidelines).

Equipment caches or geocaches

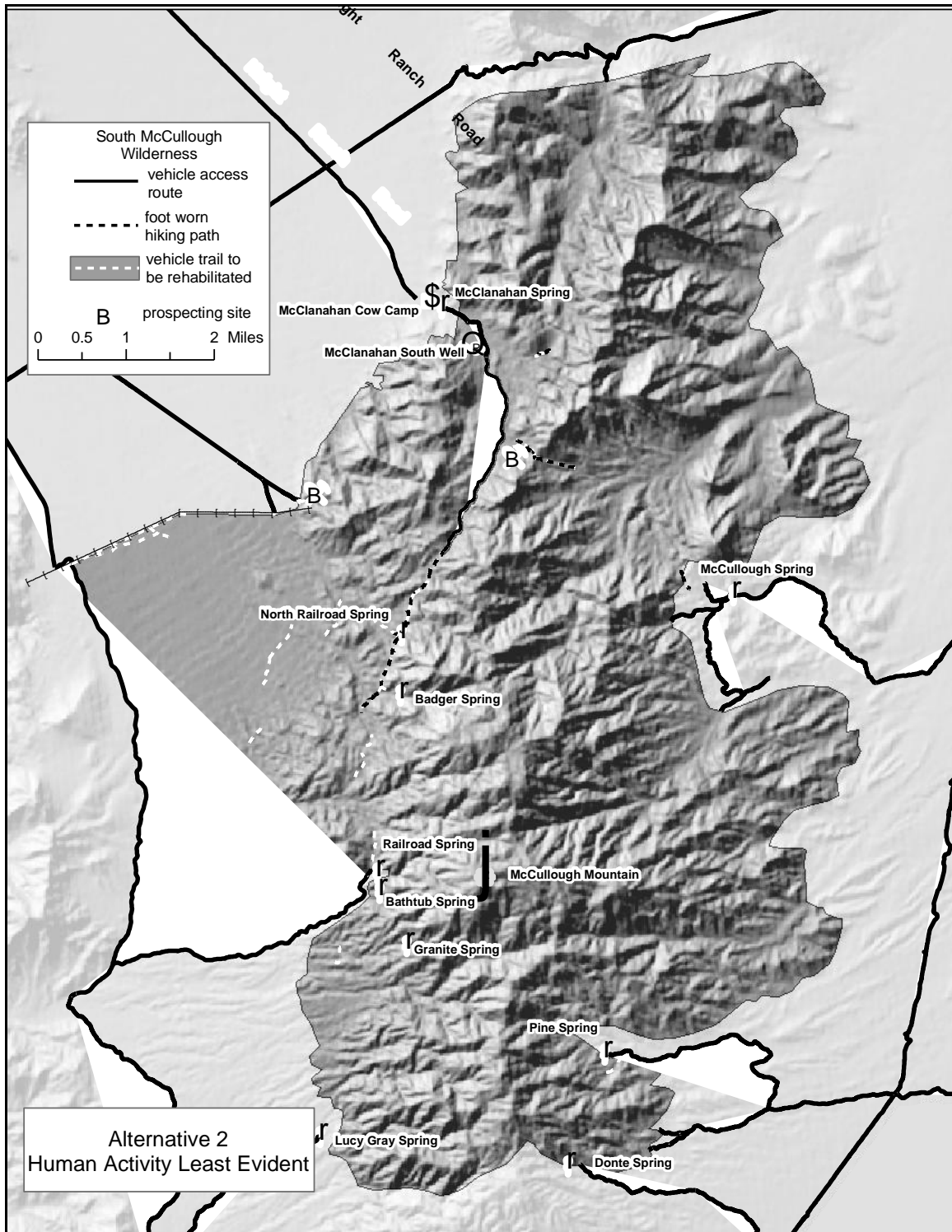
Unattended personal property not associated with an active camp would be removed by BLM personal upon encountering it. In the case of a geocache, BLM would request the geocache sponsor to remove the site listing from the internet.

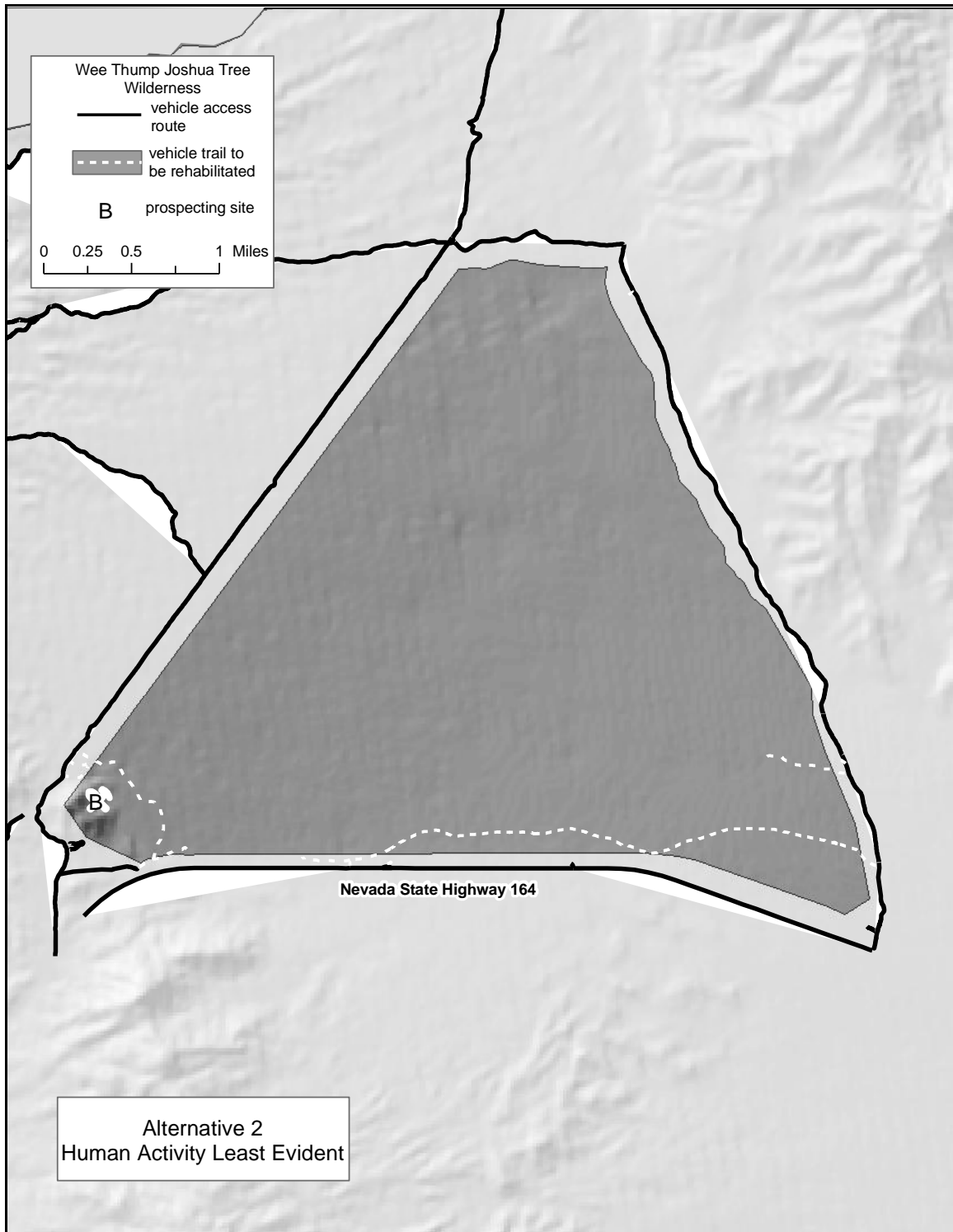
Water rights

BLM would seek to acquire additional water rights within the Wilderness areas under Nevada state water law. Existing water rights may be purchased from willing sellers, or shared with other agencies through cooperative agreement. Water rights would only be used to sustain riparian habitat or provide water to wildlife.

Private land

No private land inholdings exist. One access route to the wilderness is located on a 40 acre parcel of private land near McCullough Spring. No attempt would be made to acquire the private parcel.





Alternative 3 (Human activity most evident)

Trails

The majority of existing vehicle and other trails, approximately 33 miles, would be designated as hiking and equestrian trails and displayed on maps. Trail sections in washes would total 12 miles. Five miles of trail would be closed and rehabilitated. Trails may be maintained or rerouted where they are causing or anticipated to cause damage to wilderness character. Trail rerouting would be limited to short sections within the cultural and botanical clearance area (200 foot alignment) for the trail. Approximately eight sections in the existing trail are known to be in need of immediate relocation. Most of these are about 20 feet, the longest section being 175 feet. Examples for trail maintenance or rerouting include: 1) Slopes greater than 15 percent beyond which potential for excessive soil erosion and trail deterioration by foot traffic is high. Very short steep sections may be retained where reinforcement with native rock will prevent soil erosion. Rolling dips or rock enforced water bars would be utilized to reduce water caused soil erosion. 2) Where trail braiding exists or is beginning, the most appropriate trail may be selected by improving the tread surface or trimming back vegetation. The alternate trail(s) would be obstructed and rehabilitated with rock or native vegetation. 3) Maintenance would strive to limit trail width to 24 inches, and not exceed 36 inches except along precipices where it may be wider for safety. Tree limbs or fallen trees may be cleared within 10 feet high and four feet to either side of trail (cutting limbs at trunk) or, where practical, minor trail relocation to avoid the tree. 4) Trails may be rerouted to avoid damage to natural or cultural resources. Approximately 0.3 miles (0.2 acres) of new trail would be constructed to complete connections near Badger Springs and near a highway pullout in the Joshua Tree Wee Thump Wilderness. New trails may be designated on a case by case basis in response to impacts caused by visitor use, where a new trail would protect wilderness resources, or to provide for visitor safety. A site specific EA would be required for designation of new trails. The Joshua Tree and Walking Box Trails would be designated as interpretive trails. Interpretive information would be located on the wilderness map to describe unsigned objects.

Vehicle access and trailheads

Trailheads would be designated where vehicles can access a designated trail (see trails section). The following 9 trailheads would be designated: 1) McClanahan Spring; 2) North Railroad Spring Wash; 3) Lucy Gray; 4) Lucy Gray #2; 5) Railroad Spring; 6) Railroad Spring #2; 7) McCullough Spring; 8) McCullough Pass; and, 9) Highway 164 Wee Thump Joshua Tree. McClanahan Spring would accommodate 10 vehicles and 3 additional vehicles with trailers. The road through McClanahan cow camp would be restored to public use and widened beyond the camp to the car trailhead. The car trailhead would be located at the disturbance area before the route enters the wash. Trailhead parking for vehicles with trailers would be located at or near the McClanahan cow camp. Drinking water for human and horse consumption would be provided, as would an outhouse. Visitors would be warned of the narrow wash requiring greater clearance and traction and where opposing vehicle passing space, parking, and turn around space are limited. A turn-around loop would be constructed in and out of the wash before the narrowest section of the wash approximately 1 ¼ miles beyond the

trailhead. The Lucy Gray trailhead would allow parking for three vehicles and two additional vehicles with trailers. The Highway 164 Wee Thump (existing highway turnout), would be unmodified. All other trailheads would provide parking for three vehicles. All trailheads would include signboards and post or rock barriers as needed to limit parking disturbance or prevent motorized entry into the wilderness. Additional vehicles access points would be available at the South McCullough Wilderness at seven points or anywhere along the three boundary roads. Access points would be established at or before the Wilderness boundary to help direct vehicles from continuing into Wilderness. Turn arounds would occupy approximately 1.1 acres. The selected location would have adequate space for two vehicles to parallel park without blocking the turn around. Vehicle barriers would be constructed where natural barriers are not adequate. Barrier design would be prioritized as follows: 1) berm associated with turn around, small rocks, and or vegetation placement or rehabilitation; 2) large boulders moved by heavy equipment; 3) posts; or 4) fence or gates. The first choice would not be practical before considering the next choice. Vehicles would access the Wee Thump Joshua Tree Wilderness anywhere on its entire boundary along boundary roads. Existing parking areas on interior of the Wee Thump Joshua Tree Wilderness boundary roads would be rehabilitated. All parking would be limited to the exterior of the boundary roads to reduce the potential for vehicles or escaped campfires spreading into the wilderness.

Solitude

The western portion of the South McCullough Wilderness from McClanahan Spring to Railroad Spring of the South McCullough Wilderness and the entire Wee Thump Joshua Tree Wilderness would have opportunities for solitude, but those opportunities would not be outstanding as they are influenced by outside sights and sounds. Encounters with other visitors would be expected on the hiking trails in those areas. Encounters with other groups would be no more than eight per day exceed on five days per year. Off trail encounters would be infrequent. Solitude in Zone 2 of the South McCullough Wilderness would remain outstanding. Encounters with other visitors would be rare: one encounter per day, only exceeded on three days per year.

Camping

Camping would be allowed except within 300 feet of springs or water troughs. Campfires would be allowed except under regional fire danger restrictions. Low impact camping techniques would be encouraged. Camping would not be allowed for more than 14 days.

Group size

No group size restrictions would be implemented.

Recreational riding or pack stock animals

Day or overnight riding or pack stock animal use would be allowed on existing trails, washes, and cross country. Riding and pack stock animals may utilize naturally occurring feed or packed in feed which is certified as weed free. **Recreational stock would not be allowed to graze if livestock utilization targets in the allotment have been reached.** Packed in feed would be recommended due to scarcity of feed. All species of

domestic animals known to have the potential to transmit disease causing catastrophic or chronic mortality to native wildlife would be prohibited from the two Wilderness areas.

Guides and outfitters

Commercial guides and outfitters would be permitted for hunting and guided trail rides or hikes.

Signs

The Wilderness boundary would be identified by Wilderness signs at key locations. Signboards would be placed at trailheads with wilderness and natural resources interpretive information. Other access points may have small signboards to provide wilderness, natural resources, and regulatory information. Kiosks would be placed on the outskirts of Jean where Knight Ranch Road intersects Las Vegas Boulevard and on the access road near the prison. These two kiosk locations would be in conjunction with the Jean/Roach Dry Lakes Special Recreation Management Area. Of particular importance on the kiosks will be posting OHV race closure information. Race closure information would be posted two weeks prior to the closure and on the internet site to provide ample notice of the lack of availability and to avoid overnight visitors being stuck behind the closure. Within the wilderness, directional signs would be placed at points where the trail enters and exits the wash.

Offsite information

BLM would promote and advertise the recreational opportunities available in the South McCullough and Wee Thump Joshua Tree Wilderness.

Structures, installations, and other human effects or disturbances

Structures and installations that do not qualify for retention because of historical significance, are not the minimum necessary for preserving wilderness character, or are not associated with a grandfathered use would be removed. Pending cultural analysis the following would be removed:

- 1) debris at the proposed McClanahan Trailhead, except for the Walking Box trough which even if found not to be culturally significant will be retained for the purpose of interpreting past uses of the area.
- 2) a corral near North Railroad Springs
- 3) remains of a well; the McClanahan South Well. In addition, the shaft, a potential safety hazard, would be plugged and abandoned.
- 6) range water developments at springs on the east side of the McCullough Range. Records indicate: Lone Pine Spring, Mesquite Spring, Coyote Spring, and Blackstone Spring.

Wilderness Rangers would be given instruction on the identification of human effects 50 years old or greater. Items that are clearly and obviously less than 50 years old would be considered unattended personal property or refuse and removed. Human effects for which questions of age exist would be photographed for further consideration by the archeologist. Prehistoric human effects would not be disrupted.

Approximately 5.8 miles (2.1 acres) of preexisting passenger vehicle or motorcycle trail not usable as hiking trail would be rehabilitated. The sections visible from key observation points would be actively rehabilitated (see rehabilitation guidelines) while all other sections would be left to rehabilitate naturally (see trail section on foot worn hiking paths). Two prospecting dig areas (approximately 1.6 acres) would be rehabilitated by recontouring to mimic natural slopes. Prospects near North Railroad Spring Wash would be recontoured with a bulldozer or excavator.

Rehabilitation guidelines

Active rehabilitation would include visually obscuring the surface disturbance by breaking up compaction, “planting” dead vegetation collected nearby the site, and scattering rock to mimic the form and texture of the surrounding landscape. Hand tools would be used for the work. This would help prevent continuing human caused disturbance and would eventually be replaced by live vegetation through natural recruitment. Seeding or planting live vegetation may also be utilized in those sites where there is a poor likelihood of native vegetation recruitment or a high likelihood of infestation by a noxious weed. Native species will be used exclusively, and whenever possible local genetic stocks, and will be designed to mimic the local species diversity.

Wildlife relocation

Wildlife relocation may be approved to restore the population of an indigenous species eliminated or reduced by human influence. This may include release of animals in the wilderness to reintroduce native species or augment unviable native populations. Timing would consider visitor use of the area and generally would be scheduled for periods when visitor use is low (for example, weekdays). Projected collection days would be posted two weeks in advance on the BLM web site.

Wildlife water developments

Establishment of new wildlife water developments would be approved when they are determined to be essential to preserve the wilderness resource and to correct unnatural conditions resulting from human use. Structures would only be allowed if they promote healthy, viable, and more naturally distributed wildlife populations, and have minimal visual impact. Water developments would not be located on McCullough Mountain slopes where conflicts with climbing the peak may occur. Fenced areas at several springs excluded from use by livestock for the benefit of native plants and wildlife would be enlarged to prevent wildlife trapping. Springs developed for use by livestock would continue to be maintained for wildlife.

Research and monitoring

The wilderness would be identified as one of the priority areas for conducting basic and specific inventory, monitoring, and research when allocating staffing and funding in the Las Vegas field area. Inventory, monitoring, and research may generate the need for management action to preserve the primeval character of the wilderness. Data will be collected in a manner consistent with section 4(c) of the Wilderness Act. Those research proposals that do not contribute to improved management of the area as wilderness will not be permitted if they can be accomplished outside the wilderness.

Noxious Weeds

Noxious weeds would be treated on a case by case basis as guided by the District Noxious Weed plan. The BLM's noxious weed classification system would be consulted in setting priorities for weed control.

Livestock grazing facilities

Water developments would continue to be authorized for use by livestock at North Railroad Spring and Granite Spring within the South McCullough Wilderness. The enclosure (to prevent livestock from accessing springs and riparian areas) at North Railroad Spring would be enlarged to protect a larger riparian area, and the water trough would be moved (about blank miles away) to the old passenger vehicle track. A new riparian enclosure and watering trough would be built at Granite Springs and Dry Seep. Livestock enclosures would continue to be located at Badger Springs, Bathtub Spring and Lucy Gray Spring #3 (probably not in). A corral is located near North Railroad Spring. A portion of the Lucy Gray pasture fence (the easternmost ½ mile) would continue to be located in the wilderness. Posts and cages would be periodically installed as a part of routine rangeland monitoring to monitor utilization and trend.

Control of cattle within the allotment

An allotment fence would be constructed to prevent livestock grazing on the eastern side of the wilderness. The fence would be tied into natural barriers wherever possible, but would generally run the length of the ridge crest of the McCullough Range through the wilderness.

Access to grazing facilities

Range or cattle inspections, salt distribution, or other routine rangeland management activities would be accomplished by horseback. Motorized vehicles may be authorized on a case by case basis for activities which cannot be accomplished by foot or pack stock. Each occurrence would have written authorization. In the case of an emergency, the permittee would be authorized to use motor vehicles by verbal approval from the Field Manager or Acting Field Manager.

Fire Objectives

Pinyon Woodland: Hold 90 percent of fires to 25 acres or less. Decadal objectives are for 600 acres burned.

Tortoise – Moderate Density: Hold 90 percent of all fires to 15 acres.

Tortoise – Piute / Eldorado Valley ACEC: Hold 90 percent of all fires to 10 acres.

Fire prevention

Campfires would be prohibited through regional fire restrictions based on fire risk. Dates would vary but normally would include June, July, and August. A fuel break would be created adjacent to the Wee Thump Joshua Tree Wilderness (within the 100 foot non-wilderness strip between the wilderness boundary and Highway 164) by planting a less fire prone plant such as crested wheat grass.

Fire suppression

Fires would be fought aggressively, but utilizing techniques that employ suppression standards necessary to stop the fire with the minimum adverse impact on wilderness characteristics. Minimal Suppression Tactics (MIST) would be applied and no motor vehicles would be used unless necessary to protect human life or property, or wilderness characteristics (including desert tortoise) especially where needed to protect natural resources by stopping large vegetation converting fires. Within the Wee Thump Joshua Tree Wilderness, aerial dropped retardant would be used as ordered by the incident commander without additional authorization.

Fire rehabilitation

Rehabilitation would be applied to restore visual character and native plant productivity to mimic the local species diversity (see rehabilitation guidelines).

Private property

To assure continued public access, private land near McCullough Spring would be acquired if the owner is willing to sell and funding can be secured.

Equipment caches or geocaches

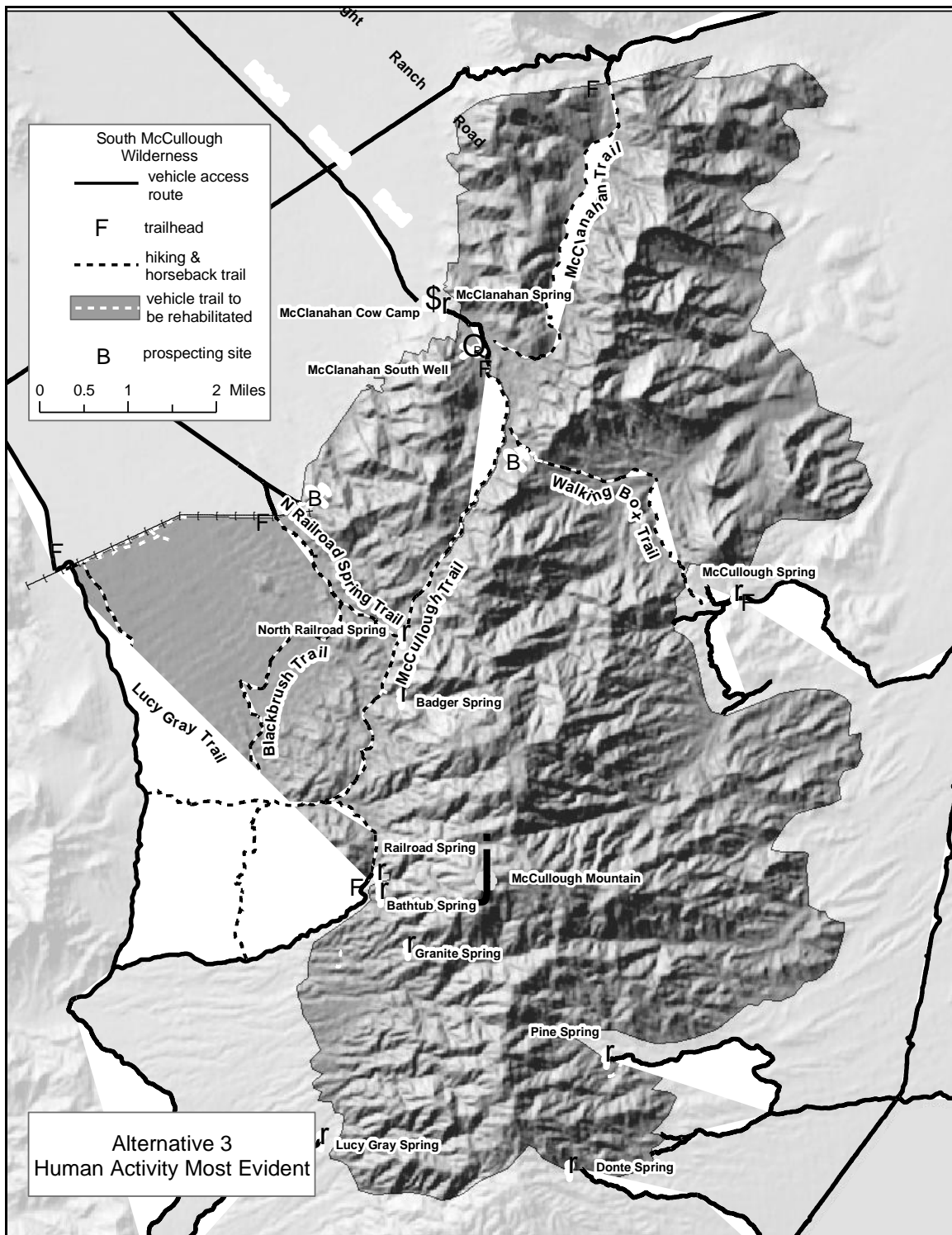
Unattended personal property not associated with an active camp would be removed by BLM personnel upon encountering it. Geocaching would be allowed through a letter of agreement with stipulations to prevent damage to the wilderness resource. Geocache locations would be situated in places where searchers would create the least impact (for example accessible by washes or on hardened or resilient areas). Geocaches would be required to be small (generally no larger than an ammo can) and rarely seen by those not looking for a geocache. A separate Environmental Assessment would be prepared for each permit. The summit register on McCullough Mountain would be left in place. Development of foot worn hiking paths (see foot worn hiking path monitoring) to and around geocaches or degradation of the wilderness character would be monitored. Should development of a foot worn hiking path begin, the permit for the geocache site would be revoked and the geocache removed. "Virtual" geocaching may occur without permit, but if site monitoring indicated development of foot worn hiking paths, degradation of the wilderness character, or damage to other resources, the geocache sponsor would be requested to remove the site posting from the internet.

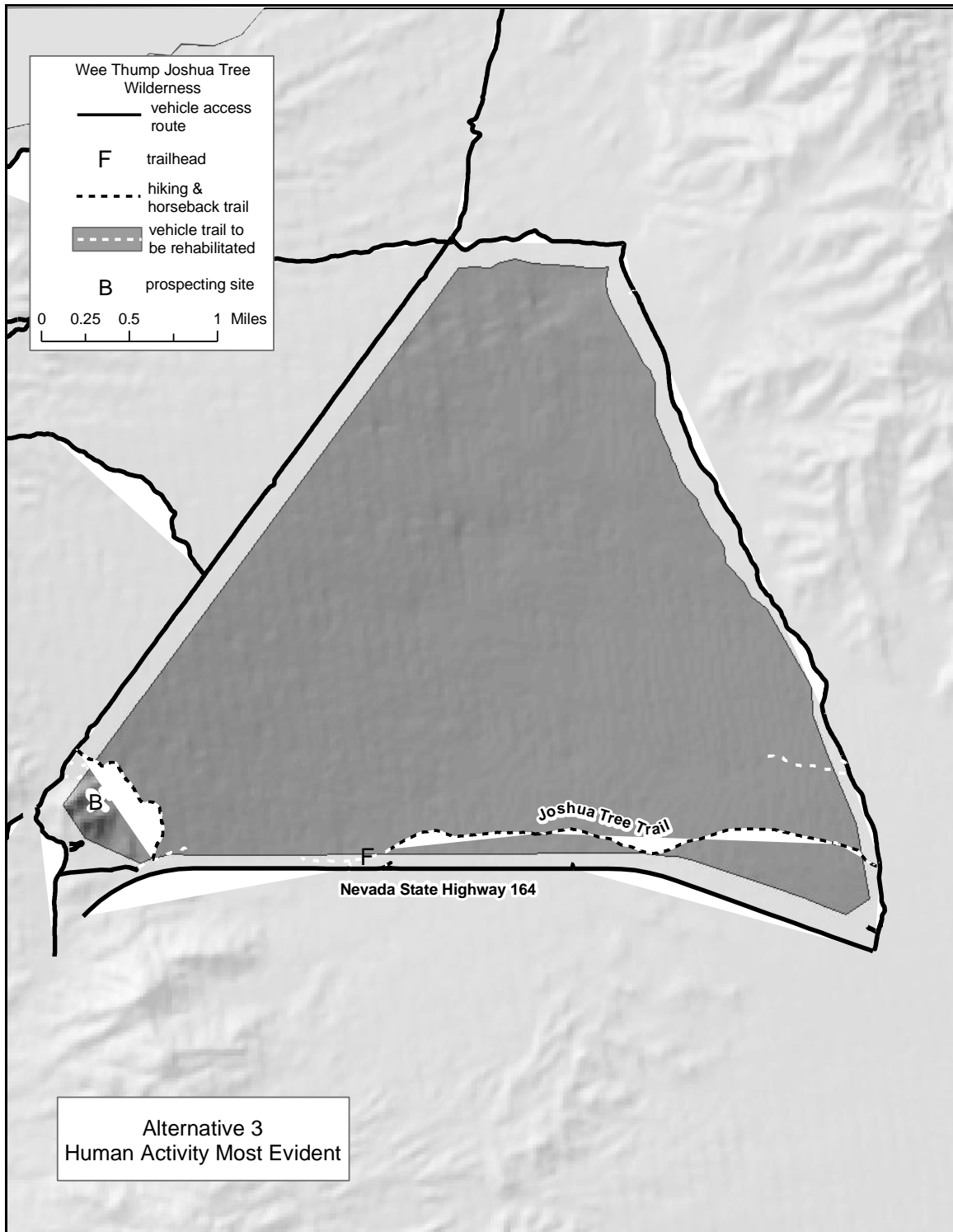
Water rights

BLM would seek to acquire additional water rights within the Wilderness areas under Nevada state water law. Existing water rights may be purchased from willing sellers, or shared with other agencies through cooperative agreement. BLM may also file application for additional water rights where water in excess of existing permitted rights can be shown to exist. Water rights would only be used to sustain riparian habitat, provide water to wildlife, or support recreation.

Private land

To assure continued public access, private land near McCullough Spring would be acquired if the owner is willing to sell and funds can be secured.





Alternative 4 (No Action)

Trails

No trails would be designated and no new recreational or interpretive trails would be constructed. Approximately 39 miles of existing former vehicle trails, cattle or game trails would be treated as foot worn hiking paths. They may be available for use by those who come across them or learn of them if a private guidebook was published, but they would not be displayed or described on BLM maps or brochures. Paths are connected by 18 miles washes that would not be signed and connections could be difficult to find.

Vehicle access and trailheads

No trailheads or vehicle access routes are designated or defined. Vehicles access the South McCullough Wilderness at 10 points or anywhere along three boundary roads. At McClanahan Spring vehicles bypass the ranching facility by entering a wash to the north, then continue through narrow sections of wash to a small turn around limited to about three vehicles at the wilderness boundary at the end of a cherry stem. Vehicles access the Wee Thump Joshua Tree Wilderness anywhere on its entire boundary along boundary roads, but no distinct access points are present.

Solitude

The west central portion of the South McCullough Wilderness and the entire Wee Thump Joshua Tree Wilderness will retain opportunities for solitude. Encounters with other visitors are not common though the chance is increasing as potential visitors learn of the area. Outside sights and sounds will be encountered on most trips. The remainder of the South McCullough Wilderness will have outstanding opportunities for solitude where encounters with other visitors are rare. No management actions to maintain opportunities for solitude would be enacted.

Camping

Camping is allowed except within 300 feet of springs or water troughs according to state law. Campfires are allowed except under regional fire danger restrictions. Low impact camping techniques are encouraged. Camping is not allowed for more than 14 days.

Group size

No group size restrictions are present.

Recreational riding and pack stock animals

Day or overnight stock animal use may occur on existing trails, washes, and cross country. Riding or pack stock animals may utilize naturally occurring or packed in feed.

Guides and outfitters

Only hunting guides are permitted within the wilderness.

Signs

The wilderness boundary is signed at key access locations including periodic intervals along boundary roads.

Offsite information

Basic information about the wilderness is provided in brochures, on BLM's website, and on BLM Surface Management Edition maps. Various information may also be made available by non BLM sources such as guide books.

Structures, installations, and other human effects or disturbances

The following structures and installations are located within the South McCullough Wilderness and would remain:

- 1) debris one mile east of McClanahan Spring including a concrete water trough with the Walking Box Ranch brand depicted.
- 2) the corral near North Railroad Springs
- 3) the remains of the McClanahan South Well including an open hole which may present a safety hazard.
- 4) a watering trough at Badger Springs
- 5) a watering trough at Tubbs Spring
- 6) range water developments at springs on the east side of the McCullough Range. Records indicate: Lone Pine Spring, Mesquite Spring, Coyote Spring, Blackstone Spring, Ninetythree Spring, and Donte Spring (Donte apparently consists only of a loose rock head cut control berm).
- 7) eighteen miles of preexisting road, motorcycle trail, and other trail which may rehabilitate naturally if not used by visitors as foot worn hiking paths. Two prospecting dig areas may rehabilitate naturally over time.

Rehabilitation guidelines

Seeding or planting live vegetation may be utilized. Native species will be used exclusively, and whenever possible, local genetic stocks, and will be designed to mimic the local species diversity.

Wildlife relocation

Wildlife removal, reintroduction, or augmentation may be approved on a case-by-case basis and according to existing policy to restore the population of an indigenous species eliminated or reduced by human influence.

Wildlife water developments

No wildlife water developments currently exist. Establishment of new wildlife water developments is approved when essential to preserve the wilderness resource and to correct unnatural conditions resulting from human use. Developments must promote healthy, viable, and more naturally distributed wildlife populations, and have minimal visual impact. Several springs have been excluded from use by livestock for the benefit of native plants and wildlife or have been developed for use by livestock and may also be used by wildlife.

Research and monitoring

Research, inventory, and monitoring of natural, cultural, and recreational conditions

occur on a case-by-case basis where it is compatible with protecting wilderness resources.

Noxious Weeds

Noxious weeds are treated on a case by case basis as per the District Noxious Weed plan. The BLMs noxious weed classification system is consulted in setting priorities for weed control.

Livestock grazing facilities

Water developments authorized for use by livestock within the South McCullough Wilderness are located at North Railroad Spring and Granite Spring. Livestock exclosures (which prevent livestock from accessing springs and riparian areas) are located at Badger Springs, Bathtub Spring and Lucy Gray Spring #3 (probably not in). A corral is located near North Railroad Spring. A portion of the Lucy Gray pasture fence (the easternmost ½ mile) is located in wilderness. Posts and cages are installed to monitor utilization and trend.

Control of cattle within the allotment

Cattle currently drift from the allotted portion of the wilderness (the Jean Lake Allotment) to the unallotted portion of the wilderness (east of the McCullough Range ridge crest). The rancher collects cattle on the east side of the mountain and returns them to the west side. Ear tags are required for cattle that drift out of the allotment. The rancher is required to move these animals within 72 hours of notification. Livestock identified out of the allotment three times in a 12 month period would be culled from the herd. Livestock control is entirely dependent upon the permittee.

Access to grazing facilities

Range or cattle inspections, salt distribution, or other rangeland management activities are normally accomplished by horseback. Motorized vehicles may be authorized on a case by case basis.

Fire Objectives

Pinyon Woodland: Hold 90 percent of fires to 25 acres or less. Decadal objectives are for 600 acres burned.

Tortoise – Moderate Density: Hold 90% of all fires to 15 acres.

Tortoise – Piute / Eldorado Valley ACEC: Hold 90 percent of all fires to 10 acres.

Fire prevention

Campfires are prohibited when fire risk is greatest. Dates vary but normally include June, July, and August.

Fire suppression

Fires are fought aggressively, but utilizing techniques that employ suppression standards necessary to stop the fire with the minimum adverse impact on wilderness characteristics. Minimal Suppression Tactics (MIST) are applied, no motor vehicles are used unless threatening human life or property.

Fire rehabilitation

Rehabilitation is applied to restore visual character and native plant productivity to mimic the local species diversity (see rehabilitation guidelines).

Private property

Equipment caches or geocaches

Unattended personal property may be removed by BLM personnel after 10 days.

Water rights

BLM maintains water rights or partial water rights for some springs located in the South McCullough Wilderness. No springs are located in the Wee Thump Joshua Tree Wilderness.

Private land

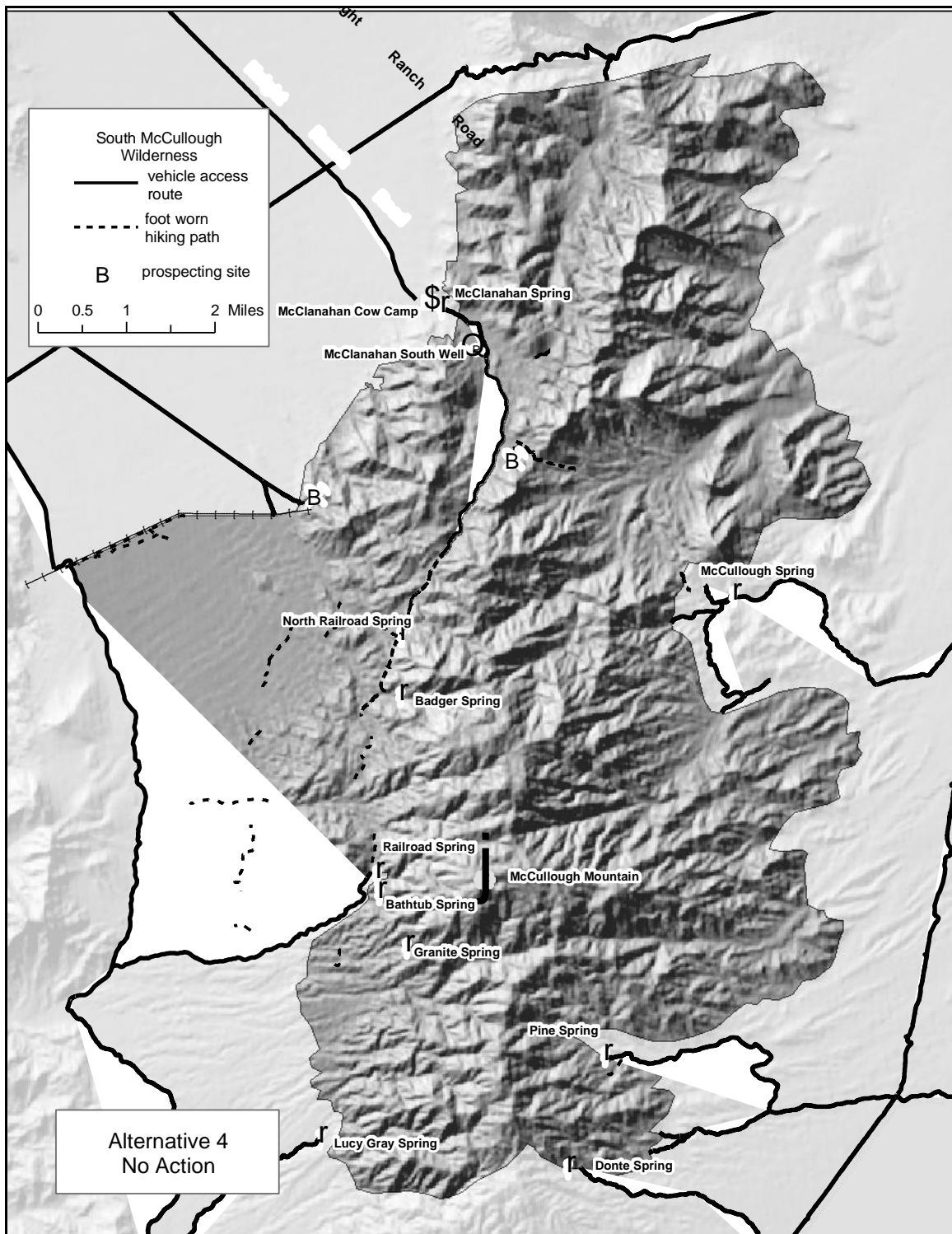
No private land inholdings exist. One access route to the wilderness is located on a 40-acre parcel of private land near McCullough Spring. The current owner has not restricted access to date.

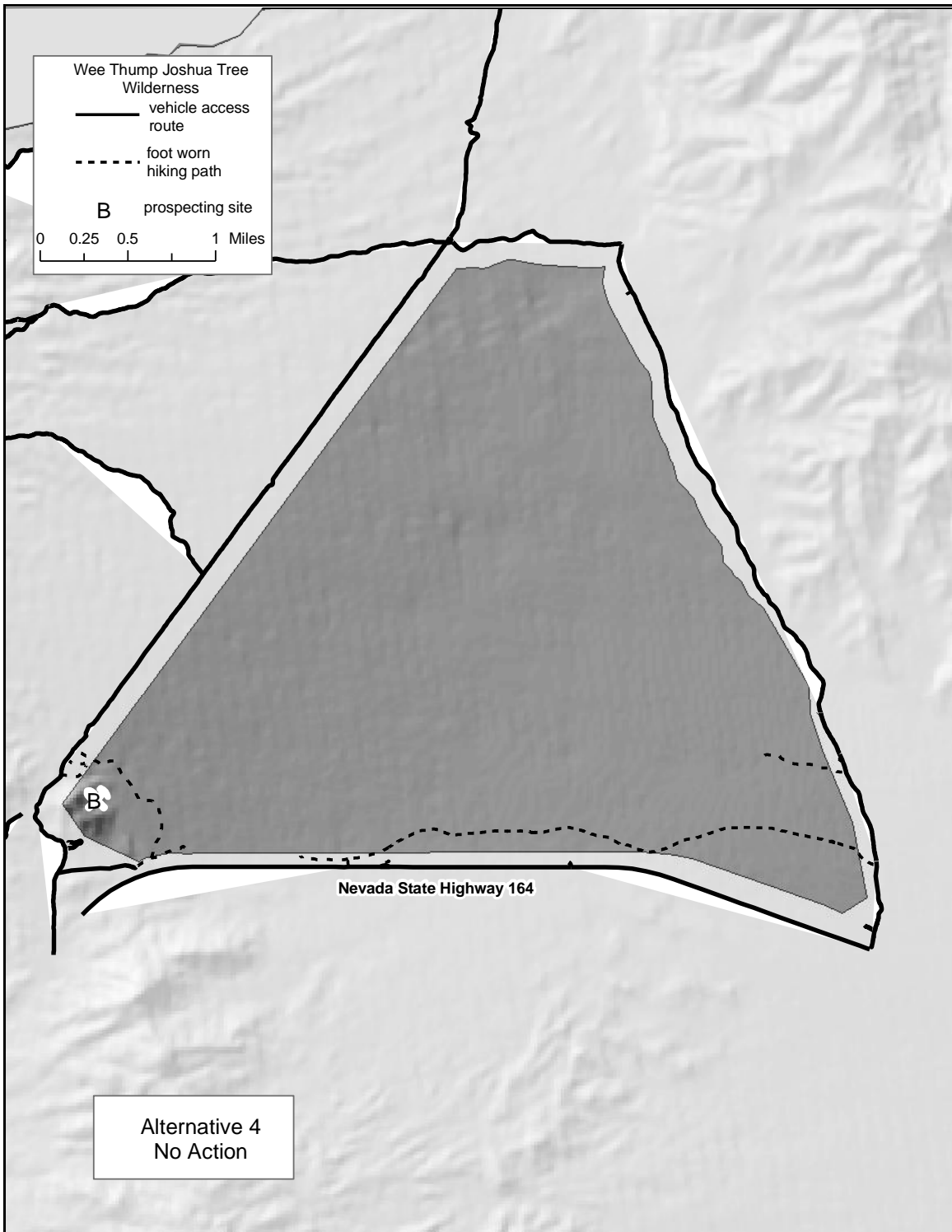
Mitigation Measures

The proposed action and alternatives were developed by the BLM staff based on all available information. Mitigation measures are incorporated into the design of the actions described in each of the alternatives. A monitoring program would be incorporated into all of the alternatives to further mitigate the potential for adverse impact to the wilderness resource. Monitoring methods are described on page 26 of the Wilderness Management Plan.

To maintain compliance with the Endangered Species Act, the BLM will conduct Section 7 consultation with the US Fish and Wildlife Service for the proposed action to establish measures to minimize impacts to the desert tortoise and establish incidental take limits for actions that may harm or harass the species. Minimization measures may include pre-construction surveys and clearances of desert tortoises, construction monitoring, and payment of remuneration fees into the Section 7 mitigation bank. Implementation of this plan will include following all terms and conditions of the Biological Opinion received from the Fish and Wildlife Service.

To maintain compliance with Section 106 of the National Historic Preservation Act, BLM will conduct an evaluation of the Area of Potential Effect (APE) before designating or developing any trail. A Class III inventory of the APE, entailing pedestrian transects spaced no wider than 100 feet apart would be conducted. The APE is defined as the trail itself as well as any areas within view shed of the trail that have the potential to contain cultural resources, for example, rock shelters, structures, or rock surfaces suitable for rock art. If avoidance is not possible, the proposal would either 1) not be implemented, 2) a new design would be proposed in a separate EA, or 3) the sites would be mitigated after consultation with Nevada State Historic Preservation Office (SHPO) and the development and approval of a treatment plan.





Affected Environment

The following resources will not be affected by the proposed action or alternatives and are not discussed in the Environmental Assessment:

- Air quality
- Environmental Justice
- Farmlands (prime or unique)
- Floodplains
- Native American Religious Concerns
- Wastes, Hazardous or Solid
- Water Quality, Drinking/Ground
- Wild and Scenic Rivers
- Migratory Birds

The following resources are addressed in the Environmental Assessment as being affected by the proposed action or alternatives, or as a component to the wilderness character of the Wilderness areas.

- Areas of Critical Environmental Concern
- Cultural Resources
- Noxious Weeds
- Threatened or Endangered Species
- Wetlands or Riparian Zones
- Wilderness
- Vegetation
- Fire
- Wildlife
- Recreation
- Livestock Grazing

Areas of Critical Environmental Concern

The entire Wee Thump Joshua Tree Wilderness and approximately 3,850 acres of the eastern edge of the South McCullough Wilderness are located in the Piute / Eldorado ACEC. The ACEC was established to protect desert tortoise habitat within the Eastern Mojave Recovery Unit to meet the criteria of the *Tortoise Recovery Plan*.

Cultural Resources

Cultural resources are defined as any physical evidence of former human presence that is older than 50 years. Cultural resources include prehistoric and historic period sites, features, and artifacts which may range in complexity from a single stone tool or bottle fragment to a large prehistoric village or historic-period town site. Cultural sites are the locations of past human activity, occupation, or use, identifiable through inventory, historical documentation, or oral history.

Section 106 of the National Historic Preservation Act of 1966 requires Federal agencies to take into account the effects of their undertakings on “historic properties;” those cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP).

Little is known regarding cultural resources within the South McCullough Wilderness. Only 23 acres surrounding McClanahan Spring have been inventoried; no artifacts or archaeological sites were reported. In the neighboring BLM California Desert District, extensive statistical sampling demonstrates a strong correlation between prehistoric sites and mesquite stands located within three miles of a spring. Similar correlations are expected to occur in these areas. Predicted site types include rockshelters, open campsites, hunting blinds, lithic procurement areas, pinyon nut caches, rock art, and agave roasting pits.

No cultural resource inventories have been conducted within the Wee Thump Joshua Tree Wilderness Area. There are no known water sources in or near the Wilderness, however, several washes cross the area, which may have retained water after rains. Seeds and yucca fruits (including those from Joshua Trees) were important food resources that likely drew prehistoric people into the area. Predicted site types include open campsites, seed processing areas, and yucca fruit drying palettes.

Known evidence of historic-period activity within the South McCullough Wilderness include ranching developments (probably associated with the nearby Walking Box Ranch founded in the 1930s) and abandoned mining claims. Known evidence of historic-period activity within the Wee Thump Joshua Tree Wilderness includes mining and a ranching development located on the edge of the Wilderness.

Noxious Weeds

Tamarisk is reported at several springs in the South McCullough Wilderness. Tamarisk may come to dominate a spring and use large quantities of water that reduce or eliminate surface water availability. Red brome, a non-native plant but not listed as a noxious weed, is found extensively through the Wee Thump Joshua Tree Wilderness and lower elevations of the South McCullough Wilderness. When occurring at high density, red brome may alter the natural fire regime to increased fire intensity, rate of spread, and shorter fire return intervals for which native plants are not adapted.

Threatened or Endangered Species

Federally Protected

The desert tortoise, a Federally listed species, occurs within the South McCullough and Wee Thump Joshua Tree Wilderness Areas. The entire Mojave population was federally listed as threatened in 1990. The desert tortoise is generally found below 4,100 feet. However, they may be found at elevations up to 5,000 feet. Tortoises are most abundant

in creosote-bursage communities and Mojave desert shrub, but also occur in lower densities in the blackbrush shrub community.

Desert tortoises occupy the bajadas on the west and east sides of the South McCullough Wilderness and the entire Wee Thump Joshua Tree Wilderness. They may also be found throughout the northern portion of the South McCullough Wilderness. Population counts adjacent to the Wilderness indicate low to moderate densities. The Piute-Eldorado Critical Habitat Unit for the desert tortoise overlaps a small part of the east side of the South McCullough Wilderness and the whole of the Wee Thump Joshua Tree Wilderness.

State Protected

Though not federally listed, several state protected species are found within both Wilderness areas. Suitable roosting and foraging habitat for the Spotted Bat (*Euderma maculatum*) occurs throughout the South McCullough Wilderness. The spotted bat is on the Watch list for the Clark County Multiple Species Habitat Conservation Plan (MSHCP) and is considered at moderate risk by the Nevada Bat Working Group. The spotted bat is found year-round in a wide variety of habitats from low elevation desert scrub to high elevation coniferous forests (Altenbach et. al, 2002) and is highly associated with rocky cliffs.

Golden eagles may nest in the South McCullough Wilderness and forage in both the South McCullough and Wee Thump Joshua Tree areas. Swainson's hawks may utilize the areas for foraging and perching, but these areas are well outside the breeding range of the species. Burrowing owls may also occur within both the South McCullough and Wee Thump Joshua Tree Wildernesses and are documented to be year round residents in southern Nevada. They are a federal Species of Concern, state protected, considered a high-priority evaluation species by the Clark County MSHCP, and considered a priority species by the Nevada Partners in Flight Working Group. They are typically found in shrub/steppe or desert shrub habitats along valley floors and in association with burrowing animals such as kit fox, desert tortoise, and badgers; often using those animals burrows for nesting.

Banded Gila monsters are known to occur in the South McCullough Wilderness in blackbrush and creosote communities. Gila monsters are typically found below 5,000 feet elevation and are associated with desert wash, spring and riparian habitats that integrate with complex rocky desert scrub landscapes. They spend over 95% of their lives underground using deep crevices and caves on rocky slopes for refuge from extreme winter and summer temperatures. Gila monsters are a federal species of concern, a state protected species, and are listed as a high-priority evaluation species in the Clark County Multi Species Habitat Conservation Plan.

Desert bighorn sheep have been documented within the McCullough Range including the South McCullough Wilderness. Desert bighorn are a state protected species and considered a watch species under the Clark County MSHCP. Desert bighorn sheep are associated with rugged terrain including canyons, steep slopes, cliffs, and mountain tops.

In the McCullough Mountain Range, desert bighorns could be described as nomadic; remaining mobile throughout their range to take advantage of variable rainfall patterns and available water sources (many of which are ephemeral). Nevada Department of Wildlife biologists have observed that desert bighorns usually limit summer activity to an area within two miles of water, although some summer movements can be greater. The population has been isolated from adjacent habitat in the Southern Spring Mountains to the west by Interstate-15 and in the Eldorado Mountains to the east by Highway 95. The population continues to utilize the Highland Range approximately four miles to the east.

Sensitive Species

In addition to federally and state listed species, BLM manages sensitive species as if they are candidates for listing. They are provided the same level of protection as candidates to ensure that actions authorized, funded, or carried out do not contribute to the need for the species to become listed. Based on existing habitat characteristics and data collected in the Eldorado Range and southern Spring Mountains, the following sensitive bat species may occur within the South McCullough Wilderness: pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), Allen's lappet-browed bat (*Idionycteris phyllotis*), Californian myotis (*Myotis californicus*), western small-footed myotis (*Myotis ciliolabrum*), little brown bat (*Myotis lucifugus*), fringed myotis (*Myotis thysanodes*), Yuma myotis (*Myotis yumanensis*), long-legged myotis (*Myotis volans*), western pipistrelle (*Pipistrellus hesperus*), and Mexican free-tailed bat (*Tadarida brasiliensis*). No known bat surveys have been conducted within the South McCullough or Wee Thump Joshua Tree Wilderness areas. Abandoned mines, caves, rock crevices, forested areas, and springs are the locations bats would occupy (Nevada Bat Conservation Plan, 2002).

Gray vireo, Le Conte's thrasher, and loggerhead shrike are all found within the Wee Thump Joshua Tree Wilderness. Loggerhead shrikes are known to occur along the bajadas of the South McCullough Wilderness. Phainopepla have been recorded in wash systems dominated by mesquite/catclaw woodlands in the South McCullough and within the Wee Thump Joshua Tree Wilderness. The South McCullough Wilderness also supports nesting Prairie falcons in cliff areas.

Chuckwallas are found throughout the deserts of the southwestern US and northern Mexico. Habitat for this species is distributed throughout the two wilderness areas in blackbrush and creosote communities with rocky outcrops, lava flows and rocky hillsides. Their diet consists mainly of annual plants, some perennials and occasionally insects.

Rosy twotone beardtongue (*Penstemon bicolor* var. *roseus*) is a BLM and Nevada Division of Forestry proposed sensitive species and a FWS species of concern. Yellow twotone beardtongue (*Penstemon bicolor* var. *bicolor*) is a BLM and Nevada Division of Forestry sensitive species and a FWS candidate species. Both plant species are found in washes, rock outcrops and crevices, or similar places receiving enhanced runoff, in the

creosote-bursage, blackbrush, mixed-shrub, and lower juniper zones from about 2,500 feet to 5,500 feet.

Wetlands or Riparian Zones

No creeks are present, but approximately 30 springs or seeps have been recorded in the South McCullough Wilderness. In addition, several large springs are located just outside the wilderness. Most of the springs and seeps inside the wilderness are very small and ephemeral. However, three springs, North Railroad Spring, Badger Springs, and Granite Spring are larger and perennial. The springs support the limited riparian vegetation present in the wilderness, a diversity of wildlife, and some may make possible opportunities for extended overnight recreational visits to the area. Private water rights exist or have been applied for on North Railroad Spring, Badger Springs, Granite Spring, Mesquite Spring, Joshua Spring, and Dry Seep. Several springs have been developed for livestock use, and several have been fenced to exclude livestock. Many of the springs have been called by different names in different documents which creates confusion. A well, the McClanahan South Well, is located in the South McCullough Wilderness, but has been abandoned. In addition to being a potential safety hazard, there is a requirement under Nevada state water law to properly abandon unused wells. No water is present in the Wee Thump Joshua Tree Wilderness.

Wilderness

The Wilderness plan addresses management of the 44,245 acre South McCullough and 6,050 acre Wee Thump Joshua Tree Wilderness areas. Wilderness characteristics are described under five categories: 1) untrammeled; 2) natural and primeval character; 3) undeveloped; 4) outstanding opportunities for solitude or a primitive unconfined form of recreation, and, 5) other wilderness features. Both areas have few trammeling activities. Those that are present include fire control and weeds, and in the South McCullough Wilderness, removal and use of vegetation through livestock grazing, and alteration of water sources. The natural and primeval character of the Wilderness areas is mostly preserved. However, some changes in vegetation have occurred, most notably, the widespread presence of the non-native red brome. The two Wilderness areas are substantially undeveloped. However in the South McCullough Wilderness, eight range developments at springs (troughs and or exclosures), a corral, 840 feet of range fence, a well, 17 miles of trail, and two prospecting dig sites are present. In the Wee Thump Joshua Tree Wilderness 4.2 miles of trail and several mining adits are present. Outstanding opportunities for solitude or a primitive undefined form of recreation are present in both Wilderness Areas. Neither the central western portion of the South McCullough Wilderness and the Wee Thump Joshua Tree Wilderness have outstanding opportunities for solitude. However, the remainder of the South McCullough Wilderness does. The South McCullough Wilderness provides outstanding recreation opportunities for hiking, horseback riding, hunting, exploration, and camping. Risk and challenge are present through the majority of the wilderness. The Wee Thump Joshua Tree Wilderness provides outstanding recreation opportunities for nature observation most particularly in the form of birding and observing Joshua trees. Only seasonal fire restrictions and

camping length of stay regulations confine recreational opportunities. Other Wilderness features of the South McCullough Wilderness include big horn sheep, Gambel's quail, and desert tortoise. Other Wilderness features of the Wee Thump Joshua Tree wilderness include Joshua trees and songbirds.

Vegetation

The South McCullough and Wee Thump Joshua Tree Wilderness areas are located wholly within the Mojave Desert region. Four vegetation communities occur within the wildernesses: creosote-bursage scrub, mixed Mojave shrubland, blackbrush, and, within the South McCullough Wilderness, pinyon-juniper. The Wee Thump Joshua Tree Wilderness is dominated by Joshua trees (*Y. brevifolia*). Many of the Joshua trees within Wee Thump Joshua Tree Wilderness have been estimated to be over 250 years old.

The creosote-bursage community occupies the sandy alluvial valley bottom and lower bajadas of Piute Valley, at elevations between 2,500 to 3,250 feet. This community is represented by the co-dominants, creosote and bursage, with many sub-dominants. The dominant grass, galleta (*Hilaria rigida*), forms robust patches within the creosote-bursage community.

The mixed Mojave desert shrub community occurs on upper bajadas and hills at elevations from about 3,250 to 4,000 feet. This community includes Joshua tree, Mohave yucca (*Y. schidigera*), banana yucca (*Y. baccata*). In addition, this community includes a wide assemblage of cacti. The important grasses in this community are galleta, black grama (*Bouteloua eriopoda*), bush muhly (*Muhlenbergia porteri*) and needlegrass (*Stipa speciosa*).

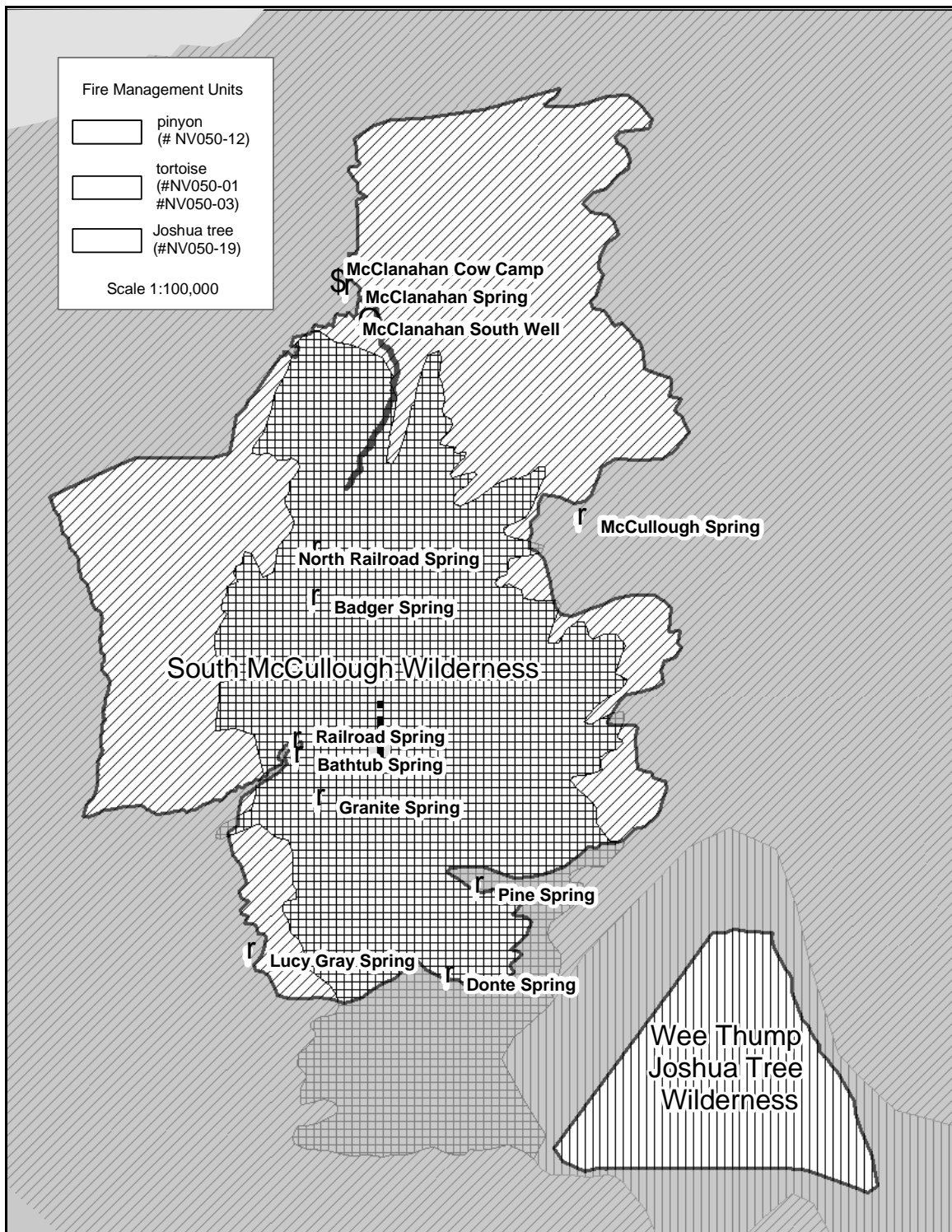
The blackbrush scrub community, dominated by blackbrush (*Coleogyne ramosissima*), intergrades with the mixed Mojave desert shrub community on the rocky, well-drained hillsides at the elevations around 4,000 feet throughout the wilderness area.

The pinyon-juniper woodland community occurs only at the highest elevations above 4,000 feet. On south facing slopes, the woodland is open, junipers predominate and the understory is of mixed shrubs with some grasses. On north facing slopes, the canopy is closed, pinyon predominates and the understory is mostly of grasses (Bostick 1973).

Fire

The two wilderness areas include four Fire Management Units (FMU): Pinyon forest (FMU # NV050-12), Tortoise - Moderate Density (FMU # NV050-01), and Tortoise – Piute/Eldorado ACEC (FMU #NV050-03) for the South McCullough Wilderness; and, Joshua Tree Forest (FMU # NV050-19) for the Wee Thump Joshua Tree Wilderness.

The tortoise and Joshua tree FMUs are the lower elevation areas below 4,000 foot having vegetation communities of creosote, bursage, blackbrush, and Mojave scrub. These



FMUs include the entire Wee Thump Joshua Tree Wilderness and the western and northeastern portions of the South McCullough Wilderness (40 percent is moderate density).habitation, 11 percent is desert tortoise ACEC [Piute/Eldorado]). Stand replacement or mixed severity fires occur at frequencies of 200+ years (strongly non-fire adapted systems), are moderately altered from historical fire norms, and are at moderate risk of losing key ecosystem components from fire impacts (Fire Regime V, Condition Class II).

The pinyon vegetation community is located primarily in the higher elevation terrain (approximately 4,000 feet and greater) covering about 49% of the South McCullough Wilderness Area. The slopes are dominated by open or closed canopy stands of pinyon and juniper with montane shrub communities along many drainage bottoms and to a lesser extent within small, disturbance-created patches. The FMU historically is estimated to experience stand replacement fires every 100 years, is moderately altered from historical fire norms, and is at a moderate risk of losing key ecosystem components from fire impacts (Fire Regime II; Condition Class II).

Fire is not believed to play a substantial ecological role in the natural ecology of the desert shrub communities (including the Tortoise - Moderate Density, Tortoise – Piute/Eldorado ACEC, and Joshua Tree Forest FMUs). Mojavean shrublands were not believed to have been exposed to large wildfires prior to the 19th century introduction of exotic annual grasses, most notably red brome. Red brome is more flammable and fire-prone than the widely spaced native Mojavean grasses and shrubs because it cures out earlier and more completely and forms continuous dense fuel beds. Where infested by red brome, low desert shrublands are threatened by wildfire whenever unusually wet years create build-ups of the non-native annual grasses. However, for this threat to be realized there must also be an ignition source. Most lightning caused fires are associated with monsoonal activity producing primarily wet lightning cells. All wildfires during the period 1980-2004 in the South McCullough and Wee Thump Joshua Tree Wilderness Areas exhibited low to moderate intensity and low rates of spread. Until recently, the remoteness and lack of human visitation in the area has not presented a high chance of ignition from human sources. The incidence of human-caused wildfires may increase with population growth in the county and increased public visitation. If ignitions occur during dry and windy conditions and during those infrequent years when ephemeral build-ups of invasive annuals are present (roughly 10 year cycles), large fires could result.

Recent wildfire activity within the South McCullough and Wee Thump wilderness boundaries has been minimal. In the 23-year period between 1980 and 2004 a total of ten (10) documented fires occurred in South McCullough (0.4 fires per year) and two documented fires occurred in Wee Thump Joshua Tree (0.09 fires per year). These fires burned 23.9 acres in South McCullough and 5.3 acres in Wee Thump Joshua Tree Wilderness Areas. The largest single fire in the South McCullough Wilderness was 20 acres with an average fire size of 3.9 acres. Response to these fires has been initial attack with suppression and successful extinguishment, however, most fires have been small and low intensity because of associated rain and have required minimal or no suppression

effort. The largest single fire in the Wee Thump Joshua Tree Wilderness Area was 5 acres with an average fire size of 2.7 acres. Five fires were lightning caused and three human-caused. Lightning fires occurred in June, July, and August which is the peak monsoonal thunderstorm activity in southern Nevada. Human-caused fires took place between August and November which demonstrates the year-round fire potential existing in some low elevation areas.

Wildlife

The remote location, steep terrain, and perennial springs of the South McCullough Wilderness support a variety of wildlife including crucial summer habitat for solitude dependent species. The Wee Thump Joshua Tree Wilderness is made up of a relatively dense and continuous stand of Joshua tree woodland and supports a diverse assemblage of birds. The wilderness and surrounding Joshua tree woodland have been recognized as an Important Bird Area by the Audubon Society.

Birds

The variety of ecosystems within the South McCullough Wilderness area makes for a wide range of bird species. Raptor species include golden eagles (*Aquila chrysaetos*), prairie falcons (*Falco mexicanus*), red-tailed hawks (*Buteo jamaicensis*), and Swainson's hawks (*Buteo swainsoni*). One known active prairie falcon nest site has been observed on McCullough Mountain. Gambel's quail (*Callipepla gambelli*) and the non-native chukar (*Alectoris chukar*) comprise the game birds. Black-throated sparrows (*Amphispiza bilineata*), burrowing owls (*Athene cunicularia*), cactus wrens (*Campylorhynchus brunneicapillus*), and horned larks (*Eremophila alpestris*) can be found in the creosote-bursage scrub and Mojave desert scrub along the bajadas on the western and eastern slopes of the range. Phainopeplas (*Phainopepla nitens*) have been observed within the mesquite stands in the canyons. Scott's orioles (*Icterus parisorum*) and red-shafted flickers (*Colaptes auratus*) have been observed in the pinyon-juniper

The large Joshua trees of the Wee Thump Joshua Tree Wilderness offer nest cavities that are rare throughout most of the low elevation Mojave Desert region. As a result, this wilderness supports a unique group of cavity nesting birds and birds using cavities for winter refuge. Birds recorded in the wilderness include ash-throated flycatchers (*Myiarchus cinerascens*), Bendire's thrashers, Cassin's kingbirds (*Tyrannus vociferans*), gilded flickers (*Colaptes chrysoides*), gray flycatchers (*Empidonax wrightii*), gray vireos (*Vireo vicinior*), hairy woodpeckers (*Picoides villosus*), Le Conte's thrashers (*Toxostoma lecontei*), loggerhead shrikes (*Lanius ludovicianus*), northern flickers (*Colaptes auratus*), phainopepla, Scott's oriole, western bluebird (*Sialia mexicana*), western burrowing owl, and white crowned sparrows (*Zonotrichia leucophrys*). Red-shafted flickers and other bird species in the higher elevations of the South McCullough Wilderness may also winter here. Additionally, prairie falcons have been documented flying in the area.

Reptiles

The South McCullough Wilderness is habitat for chuckwalla, desert horned lizards, desert tortoises, Gila monsters, Mojave green rattlesnakes, yellow-backed spiny lizards, and zebra-tailed lizards. Other species that most likely occur include long-nosed leopard lizards, side-blotched lizards, and western whiptails.

The Wee Thump Joshua Tree Wilderness is habitat for Great Basin collared lizards and yellow-backed spiny lizards have been collected in the area. Based on the habitat characteristics, sideblotched lizards (*Uta stansburiana*), zebra-tailed lizards, Mojave green rattlesnakes, and desert tortoises may inhabit the wilderness.

Amphibians

In the South McCullough Wilderness, McClanahan, McCullough, Pine, and Railroad Spring are known to support red-spotted toads (*Bufo punctatus*).

Mammals

The South McCullough Wilderness provides habitat for small mammals including desert (*Dipodomys deserti*) and Merriam kangaroo rats (*Dipodomys merriami*), white-tailed antelope squirrels (*Ammospermophilus leucurus*), black-tailed jackrabbits (*Lepus californicus*), and desert cottontail rabbits (*Sylvilagus audubonii*). A number of bat species may roost in the steep rocky terrain at caves and overhangs and in forested areas and utilize the springs. Desert bighorn sheep (*Ovis canadensis nelsoni*) and mule deer (*Odocoileus hemionus*) utilize the higher elevations where the steep terrain and pinyon and juniper trees provide cover. Predators such as coyotes (*Canis latrans*), desert kit foxes (*Vulpes macrotis*), bobcats (*Lynx rufus*), and mountain lions (*Felis concolor*) have been sighted or have left sign of their presence.

The Wee Thump Joshua Tree Wilderness provides habitat that is expected to support white-tailed antelope squirrels, kangaroo rats, cottontail rabbits, blacktailed jackrabbits, desert kit fox, and coyotes though formal surveys have not occurred..

Recreation.

The South McCullough wilderness is generally within an hour drive of Las Vegas. Year round visitation to the Wilderness is possible, although light snow, common at the higher elevations in winter, and hot temperatures over 100 degrees, common at lower elevations in summer, limit visitation. The wilderness ranges in elevation from about 3,000 feet to 7,026 feet at the summit of McCullough Mountain. The differences in elevation offer hiking and horseback riding opportunities ranging from creosote desert to pinyon woodland. Visitor use of the area in 1987 (previously known as the South McCullough Wilderness Study Area) was approximated 1,100 annual visits. Use levels and activity types have not been routinely tracked since that time. Primitive recreational opportunities are outstanding because of the size of the area, variety of topography, diverse vegetation, scenic views, wildlife, and, in most areas, solitude.

Availability of water at a number of springs enhances day-hiking, backpacking, and horseback riding and overnight camping opportunities. However, finding the springs can be challenging. Overnight horse packing is not known to occur; backpack camping is infrequent. Car camping is known to occur on the boundary of the wilderness at many locations. Availability of firewood for camping is good in higher pinyon dominated elevations and poor elsewhere. A series of trails exist in the central and western portion of the wilderness. Trails were created by ranching operations or by motor vehicle use prior to Wilderness designation and are not designated or maintained by BLM. McCullough Mountain is routinely climbed (no trail) and several other unnamed peaks on the ridge crest offer destinations for hikers. None of the peaks are technically difficult to climb. Hunting occurs for game birds, deer, and big horn sheep. Hunting tags for the unit including the Wilderness are highly sought after.

The only current information provided by BLM is maps. Some private visitor information has been published or posted on the internet. Most information is for climbing McCullough Mountain. One unusual listing describes exploring for a “lost gold mine” in the McCullough Spring area. The most easily accessed portion of the wilderness is the central western area, and consequently, this area has received more visitor attention. Permits are not required to visit the area. There are no group size limits or camping restrictions. No commercial recreation permits have been issued to operate within the wilderness except for hunting guide permits which include the wilderness as a part of a larger region permitted (see Appendix B for a commercial guiding needs assessment).

In the majority of the South McCullough Wilderness a sense of remoteness and isolation is experienced. In the McCullough Range numerous draws, ravines, rocky outcrops, ridges, and occasional canyons are found that create secluded locales. Those locales, the wilderness’ large area, low visitation levels, the need for route-finding skills, and, at middle and higher elevations where Joshua trees, pinyon, and juniper provide screening, provide outstanding opportunities for solitude. Opportunities for solitude are present but not outstanding in the central western portion of the wilderness due to flat topography, sparse vegetation, and the periodic sounds and sights of adjacent off highway vehicle activity.

Off-highway vehicle (OHV) use is a major recreational activity occurring adjacent to the western portion of the wilderness. Both racing, and casual OHV use occur. The sounds, and sometimes sights of OHV use affect the recreational and solitude qualities inside the wilderness near this region. When in progress, racing may also temporarily block access to the wilderness. OHV trespass has been observed throughout the wilderness, but especially on the western side. Eleven regular vehicular access points have been identified, but some additional OHV use to the boundaries may also occur in washes. Adjacent to the majority of the boundary, from Pine Spring clockwise to the northeastern corner of the Wilderness and the area around McCullough Spring, the OHV designation of the Las Vegas RMP allow for motor vehicles to travel in washes (8 feet or wider with

flat, unconsolidated bottoms). Consequently, other areas of the wilderness boundary may now or in the future be accessed by motor vehicles.

A series of vehicular access points of varying standard exist around the wilderness. The Knight Ranch Road to McClanahan Spring in the northwest portion of the Wilderness is maintained by Clark County to a standard easily accommodating a trailer and wide enough to allow vehicles to pass. The next highest standard access is a road from Jean to the center west boundary on a road that is passable by standard vehicles. All other wilderness access points are rough roads which often require high clearance and occasional four wheel drive.

The Wee Thump Joshua Tree Wilderness is within a two hour drive of Las Vegas and within a 30 minute drive of Searchlight. The wilderness consists of a flat sloping alluvial plain ranging from 4,200 to 4,800 feet and includes a small hill 5,120 feet in elevation on the extreme southwestern corner. Year round visitation to the Wilderness is possible, although visitation would be limited in summer by temperatures over 100 degrees.

Primitive recreational opportunities are outstanding for walking through and viewing a dense Joshua tree stand and the birds that inhabit the area. The stand is unique in the number and size of specimens and provides cavities that attract birds for nesting or winter refuge. This cavity habitat is rare within the desert environment and consequently attracts a diversity of bird species. Bird watchers visit the area and the Audubon Society has recognized it as an "Important Bird Area." The only known breeding population of Gilded Flicker in Nevada is located here.

Opportunities for solitude are present but not outstanding in this wilderness due to a combination of small size, flat topography, steady sounds of vehicles from highway 164, and the sight of power lines and radio repeaters on the western border of the wilderness.

Vehicular access to this Wilderness is possible anywhere along its entire boundary since it is bounded by roads. The south boundary is the paved state Highway 164, and a hardened pull out can be used to access the Wilderness. Near the pull-out is a closed vehicle route that can be hiked as a trail but is not designated or marked. The pull-out is the safest access point for avoiding high speed traffic from the highway. Another notable access point is off the western boundary road approximately ½ mile off Highway 164 which accesses the hill in the southwestern corner of the Wilderness. Infrequent OHV trespass has occurred, mostly on the eastern side of the Wilderness.

No water is available within the Wilderness. Overnight camping is possible but not known to occur. Car camping occurs at nine visitor created campsites on the eastern boundary road of the wilderness (about half on the wilderness side of the road) that may also act as starting points for hiking. Availability of firewood is poor. Hunting occurs for game birds. Visitor numbers and activity types have not been systematically monitored, but use is dispersed and believed to be low. No commercial recreation permits have been issued to operate within the wilderness except for regional hunting guide permits, however guided hunting is not believed to occur in this Wilderness. There are no group size limits or camping restrictions.

Livestock Grazing

The Wee Thump Joshua Tree Wilderness and the eastern portion of the South McCullough Wilderness is closed to livestock grazing. Approximately 24,100 acres of the South McCullough Wilderness, the area west of the ridge crest of the McCullough Range, is part of the Jean Lake Allotment. The Wilderness portion of the allotment is almost entirely within one pasture; Pasture 4. A small portion of the wilderness is within Pasture 3, but terrain of that section is steep and so receives only nominal use (See map on page 82). An Allotment Management Plan (AMP) was approved in 1998, however, a new plan is currently being prepared.

The allotment is classified as ephemeral which means an area that does not consistently produce enough forage to sustain a livestock operation but may briefly produce unusual volumes of forage to accommodate livestock grazing. The grazing permit is as follows for the Jean Lake Allotment:

Permitee	Livestock #	Grazing Period	% Public Land	Type of Use	AUMS
Bow & Arrow Ranch, LLC	135 to 200 Cattle	03/01 to 02/28 rest rotation	100%	Ephemeral	Varies year to year

The current grazing system allows year-long use of the allotment under a four pasture rest rotation system with specific utilization levels and vegetative objectives that trigger movement of cattle. However, the allotment is currently being managed as a three pasture rest rotation system. The grazing system is anticipated to be changed, through a new Allotment Management Plan, to six months followed by 12 months rest in each pasture.

Cattle movement in Pasture 4 is somewhat restricted by steep topography and the ridge crest of the McCullough Range along with limited water distribution. However, cattle regularly move out of the Jean Lake Allotment over numerous gaps in the ridge crest. Evidence of cattle grazing on the east side of the McCullough Range is common at springs and on many of the ridge saddles.

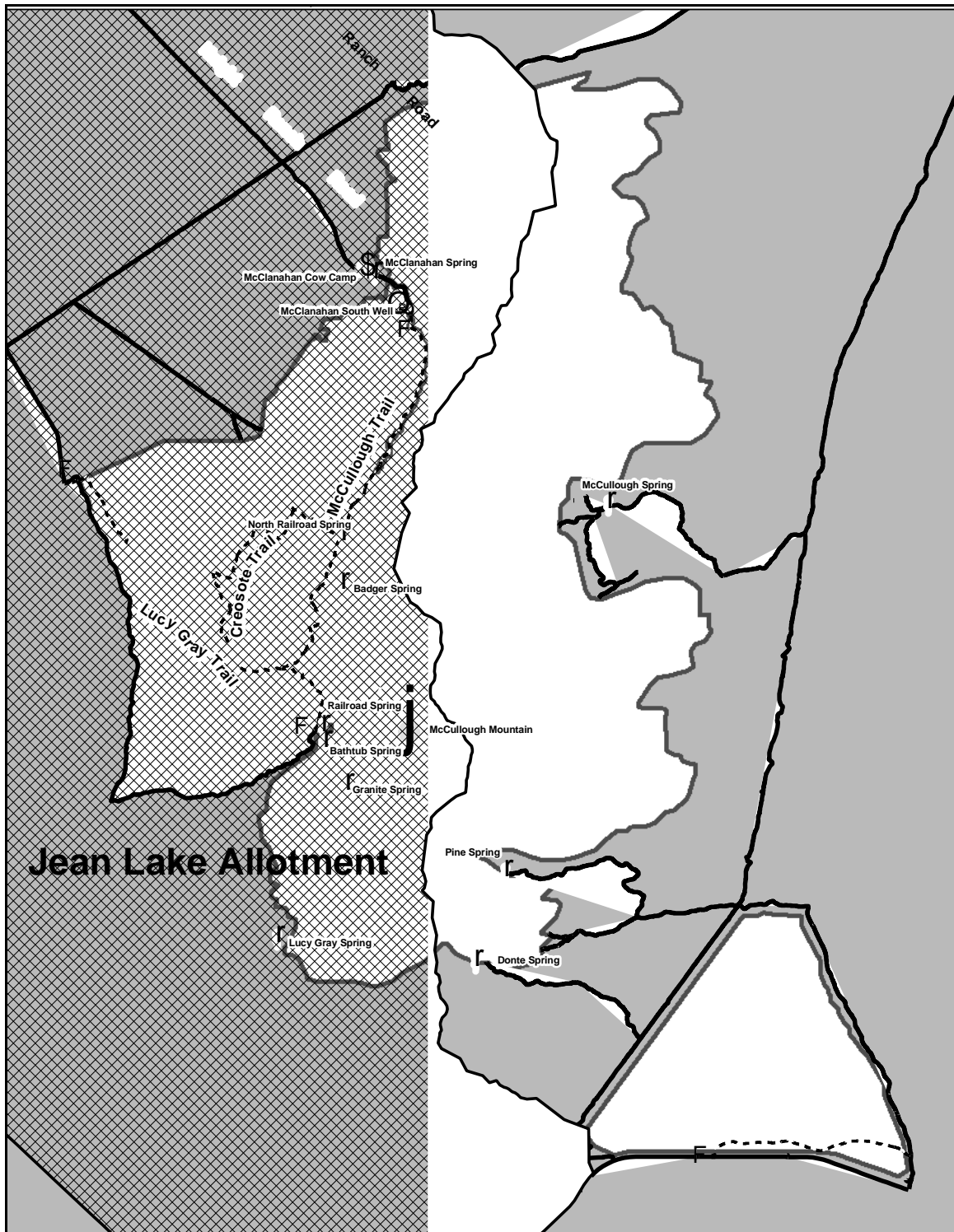
Existing range developments within the Wilderness include spring developments, riparian protective exclosures, a corral, a well, and a fence as shown in table below.

Development	Location	Description	Comment
North Railroad Spring exclosure and water development	T26R61S31SENE	Headbox, pipeline, and float controlled water trough. Two inch pipe fence exclosure around spring.	Authorized for livestock use.
Badger Seeps	T26R61S31SE	A series of seeps,	These springs are

exclosure and water development		the uppermost being the largest. There is a two inch pipe fence exclosure around the uppermost seep. There is a headbox and trough at the lowermost seep.	not authorized for livestock use.
Tubbs Seep exclosure	T27R61S18SENE	Livestock exclosure and a headbox and trough.	Spring is not authorized for livestock use.
Granite Spring water development	T27R61S18SWSE	1 foot high 4 foot wide concrete dam.	Authorized for livestock use.
North Railroad Spring corral		Corral	No longer used
McClanahan South Well		well	Abandoned.
Lucy Grey Fence		Pasture Fence	Majority of fence is on the Wilderness boundary. 840 feet of eastern end is within wilderness.

The grazing permittee is responsible for maintenance of all livestock grazing facilities in the wilderness by cooperative agreements. Although access by motor vehicles may occur on a case-by-case basis, no scheduled access by motor vehicles for facility maintenance or livestock operations has been established.

Several abandoned water developments are present in the east side of the Wilderness. These supported use of the McCullough Mountain Allotment which is now closed to grazing. Spring developments are located at Lone Pine Spring, Mesquite Spring, Donte Spring, and Blackstone Spring.



Environmental Impacts

Alternative 1 (Proposed Action)

Areas of Critical Environmental Concern

Under the Proposed Action, existing wilderness access points would be utilized keeping modification of critical habitat within the ACEC to a minimum. In the Wee Thump Joshua Tree Wilderness, a 0.1 mile section of new trail would create approximately 0.04 acres of new surface disturbance. Several areas totaling approximately one acre impacted by parking and camping on the Wilderness side of the boundary roads and approximately 1.2 miles of former vehicle trail would be rehabilitated. The overall affect to the ACEC would be beneficial by rehabilitating existing impacts.

Cultural Resources

Construction activities and improvements that support implementation of this management plan would be evaluated for effects to cultural resources. This would include cultural resource inventories of the Area of Potential Effect specific to each undertaking and the possibility of mitigating sensitive or threatened sites.

Designated trails would be situated so as to avoid direct or indirect impacts to cultural resources. In addition, rehabilitation projects would also be designed so as to avoid impacts to cultural resources. If avoidance as described in the proposal is not possible, the proposal would either 1) not be implemented, 2) a new design would be proposed in a separate EA, or 3) the sites would be mitigated after consultation with Nevada State Historic Preservation Office (SHPO) and the development and approval of a treatment plan.

Potential impacts to sites in the Wilderness Areas include direct and indirect damage from pedestrian traffic, vandalism, removal of artifacts, and unauthorized excavations. Site stewardship efforts and increased patrol by law enforcement officers and other BLM staff would help reduce impacts to cultural sites. Periodic monitoring of visitor use would trigger mitigation efforts if impacts to cultural resources are detected.

Noxious Weeds

The likelihood for weed introduction through horse use would be reduced through the Proposed Action. The ability to detect weeds would be enhanced through greater emphasis on monitoring. Weed treatment procedures in the wilderness setting would be clearly defined and compatible with limiting noxious weeds.

Threatened or Endangered Species

These include species that are federally listed, proposed or candidate species protected

under the Endangered Species Act (ESA), species that are listed by the State of Nevada under the Nevada Revised Statutes (NRS), and species identified by the BLM as sensitive. Impacts to biological resources would be considered significant if the viability of a federally protected species is jeopardized or the action would result in the need to list a species under the ESA or the NRS.

No impacts to golden eagles or Swainson's hawks are anticipated as nesting sites will not be affected and modification of foraging habitat will constitute such a small percentage of their home range, that it would not have an affect on their behavior or ability to locate prey.

No new trails will be constructed within bighorn sheep range. Maintenance of existing trails could result in temporary disruption of their use of the area during the period of repair. It is anticipated that repairs will take only a few days at most in any location, and will, therefore, not result in a long term disturbance to bighorn behavior.

The proposed management would assure availability of water for desert bighorn sheep herds and other sensitive wildlife species utilizing the wilderness areas.

Ground disturbing activities identified in the plan may result in harassment, injury or mortality of desert tortoises and Gila monsters and/or destruction of their habitat. These activities include: trail construction and maintenance; construction of trailheads, vehicle pullouts and vehicle access point turnarounds; fence construction and relocation; removal of existing structures and installations; rehabilitation actions; and fire suppression actions.

Prohibiting vehicle use in the cherry stem behind McClanahan Spring would prevent impact to vegetation, in particular the rosy two-toned penstemon and yellow two toned penstemon, sensitive plant species which inhabit this wash. Vehicle parking and turn around points will be established once sites are inventoried for sensitive species. Therefore, impacts from parking or from unauthorized vehicles continuing into the wilderness would be less than the no action alternative

This alternative would result in approximately 14.4 acres of disturbance to desert tortoise and sensitive wildlife habitat. This includes approximately 6.3 acres of existing disturbance that would be restored to natural condition, 7 acres of existing disturbance that would permanently remain unavailable as habitat, and 1.1 acres of new habitat disturbance. The final result would be the permanent loss of approximately 8.1 acres of tortoise and sensitive wildlife habitat. If, in the future, informal trails are created by visitation, management guidelines provide for rehabilitation or modification if determined to have a negative impact on wildlife.

Wetlands or Riparian Zones

Under the proposed action alternative, additional protection would be provided to riparian

areas by enlarging livestock exclosures and creating several new exclosures. Enlarged exclosures would help restore riparian areas to Proper Functioning Condition (PFC) by re-establishing vegetation and reducing compaction. Actions to prevent cattle drift to the eastern side of the wilderness would provide protection for springs outside of the allotment, on the east side of the South McCullough Wilderness. The removal of exclosures, should livestock grazing cease, would have no effect on riparian areas. Seeking water rights when they become available would also serve to put riparian areas under greater protection.

Wilderness

Untrammelled. Under this alternative, trammeling activities would continue in the South McCullough and Wee Thump Joshua Tree Wilderness areas but under plan guidelines may occur less frequently than the no action. Removal and use of vegetation through livestock grazing would continue to occur under the existing Allotment Management Plan, however measures would be taken to prevent this activity in the portion of the wilderness closed to grazing. Activities may continue to control fire, however, most occurrences of fire in the pinyon zone would not be controlled. Activities may continue in the control of weeds, and future wildlife relocation activities could occur under plan guidelines. Rehabilitation projects would be a trammeling effect in the short term.

Naturalness and primeval character. The naturalness and primeval character of the South McCullough and Wee Thump Joshua Tree Wilderness areas would remain mostly intact. Actions are defined to prevent most unnatural changes in vegetation resulting from fire or fire control. In the pinyon zone, most fires would not be suppressed and this would allow for natural ecosystem variation and change. In the lower elevations, where vegetation converting fires are a risk due to red brome density, all fires would be suppressed as soon as possible. Non-native plants would continue to persist in large areas (for example, red brome for which control methods are not available), but most noxious weeds would be removed to restore and preserve the wilderness' natural character. Positive action may be authorized to support healthy, viable, and naturally distributed wildlife populations.

Undeveloped. Under this alternative, six range developments at springs (troughs and or exclosures), would remain within the South McCullough Wilderness and two would be removed. If the grazing permittee voluntarily relinquishes the grazing privileges in the Jean Lake Allotment three spring developments would remain, but the remainder of the range developments would be removed. A corral, 840 feet of range fence, and a well would be removed. In the South McCullough Wilderness 7.3 miles of trail would remain, and 12 miles of trail would be reclaimed. Other trail segments using washes and approximately 18 trail markers would be present. Two prospecting dig sites would be reclaimed, one of which the minimum tool for reclamation is earth moving equipment because of the magnitude of the existing disturbance. In the Wee Thump Joshua Tree Wilderness, 4.2 miles of trail would remain. Several mining adits would be reclaimed. An abandoned vehicle would be removed by cutting it up and taking it out by wheeled cart or helicopter (on a week day) which is the minimum tool due to size and weight. In

both areas, personal property, including geocaches, would be removed as encountered. A summit register (a small container with a note book for signing in) on McCullough Mountain because it does not attract a new use, registers are traditionally located on mountaintops, are relocated by primitive recreational techniques, and the register can provide a source of visitor use information.

Outstanding opportunities for solitude or a primitive form of recreation. Visitor encounters would regularly occur on the trail system in the west central part of the South McCullough Wilderness. Visitor encounters would be managed which would help some visitors achieve desirable experiences. Controls, however, would not be desirable for other visitors. Information would be made available to support those seeking a wilderness opportunity. However, avoiding direct promotion of the wilderness, including avoiding placing directional signs on the highway to attract passersby who otherwise would not have visited, opportunities will be less likely to be diminished. Group size, campfire, camping distance from water, camping length of stay regulations, and restrictions of equestrian use to trails and dry washes would be in place and diminish the unconfined recreational opportunities. Many opportunities for trail hiking and riding would be present, thereby enhancing the recreational experience of some visitors. Opportunities for cross country travel, and risk and challenge in navigation and traversing terrain would be present through the majority of the Wilderness areas.

Vegetation

The Proposed Action would provide rehabilitation for nearly half of the existing, but now closed, vehicle trails. Trails designated under this alternative would be fewer than Alternative 3 and most compatible with the level of use anticipated in the two Wilderness areas. A designated trail system would help direct use to a predefined area and avoid more wide spread visitor impacts to vegetation. No additional designated trails would be allowed under the plan. Trail maintenance standards would be adopted which would prevent undue degradation of vegetative conditions. The potential for impact to vegetation from development of informal visitor trails would be mediated by adopting management standards to limit the impact, direct use to where it is most sustainable, and restrict horse riding to designated trails and washes. Prohibiting recreational riding and pack stock animals from grazing would avoid impact to vegetative vigor and reproduction, and competition with authorized cattle use. Prospecting disturbances would more quickly rehabilitate through active rehabilitation measures. Creating turn-outs on the road between the cow camp and trailhead would avoid removing Joshua trees while making opposing vehicle passing possible and minimizing overall road widening and impact to vegetation. Vehicle parking and turn-around points will be established once sites are inventoried for sensitive species. Therefore, impacts from parking or from unauthorized vehicles continuing into the wilderness would be less than the no action alternative. Guidelines are provided for rehabilitation of vegetation after disturbances. With the research and monitoring process established, long term tracking of vegetation condition will be improved.

Fire

Fire management objectives are strongly oriented to suppression in the lower elevations. Minimum Impact Suppression Techniques limit the use of motorized vehicles and certain techniques that may cause suppression impacts to wilderness characteristics. However, the use of motorized equipment would be an available option when necessary to stop large fires that have the potential of converting the vegetation from native dominance to dominance of non-native annual grasses. In the short term, suppression remains the objective in the upper pinyon woodlands elevations with Appropriate Management Response allowing for some larger burned areas. In the long-term fire would be allowed to play its natural role in the upper pinyon woodland portions of the wilderness through a future plan of wildland fire use for resource benefits. This would be the greatest benefit to the primeval character of the wilderness. Use of aerial fire suppression resources in all areas of the wilderness would reduce long-term impacts of the suppression effort. Retardant would create a short term visual impact because of its red coloration, but its use would reduce surface disturbance from line construction.

The chance of a human caused ignition in the Wee Thump Joshua Tree Wilderness would be reduced by restricting campfires from the interior of the boundary roads and by managing the Highway 164 right-of-way for less fire-prone vegetation. The vegetative buffer in the right-of-way would decrease fire spread rates and would increase the chance of a successful fire initial attack, suppression and extinguishment of the fire. This would also help prevent vegetation conversion from native to non-native plant dominance prone to the area.

Wildlife

This alternative would result in approximately 14.4 acres of disturbance to desert tortoise and sensitive wildlife habitat. This includes approximately 6.3 acres of existing disturbance that would be restored to natural condition, 7.0 acres of existing disturbance that would permanently remain unavailable as habitat, and 1.1 acres of new habitat disturbance. If informal trails are created in the future by casual users, management guidelines allow for rehabilitated or modification if determined to have a negative impact on wildlife.

Ground disturbing activities may affect wildlife species through loss of habitat features such as cover and forage and mortality or displacement of individuals during construction. Highly mobile species such as birds, jackrabbits, and coyote are less likely to be lost. In contrast, less mobile species such as reptiles, small mammals, and desert kit fox (*Vulpes macrotus*) are more likely to be injured or killed during construction activities.

The proposed management would assure availability of water for the benefit of wildlife species utilizing the wilderness areas. Formally seeking water rights would help to assure water availability for wildlife use.

Range

Cattle would continue to graze in Pasture 4 within the Wilderness as managed under the Jean Lake Allotment Management Plan. Except for a corral which is no longer in use, all range developments including spring developments and riparian exclosure fences would be kept and maintained in the Wilderness. Cattle drift from the active allotment to the eastern portion of the South McCullough Wilderness, which is closed to grazing, would require increased attention and intensive livestock management. However, if the permittee of the allotment voluntarily relinquishes his grazing privileges and permit to graze cattle, the allotment would be closed. Under this case, range developments would be removed unless determined to be needed for other purposes.

Recreation

Under the Proposed Action approximately 22.1 miles of trail would be designated (including sections located in washes), depicted on maps, and signed. The majority of the wilderness would not be accessed by trails. This intermediate alternative of trail use balances the need for defined paths to limit visitor use impact with the level of use expected to occur in the area. A monitoring system would be established to prevent or respond to degradation of trails, campsites, solitude, and recreational impact to other resources. Guidebooks or similar material from the private sector may become available for the area, but would most likely duplicate the information and trail system established.

Cross country hiking would not be affected, but horseback riding would be limited to designated trails and washes. Several loop riding opportunities would be possible. Infrequent and widely dispersed cross country horseback use for big game hunting, which would not cause the same impacts expected by repeated trail riding, would not be regulated. Pack stock camping requirements and packed in weed free-feed requirements would create additional restraints on horseback use. Water availability at North Railroad Spring would support greater trail riding opportunities. Limited guiding opportunities would be permitted under this alternative for 1) big game hunting, 2) educational organizations, and 3) guides whose service supports people with disabilities. This would be most commensurate with the identified needs for the wilderness as described in the commercial services needs assessment (see Appendix B). Visitors would not be allowed to have a campfire in the Wee Thump Joshua Tree Wilderness. No geocaching would be allowed and if encountered would be removed immediately. The proposal would be consistent with visual resource management objectives.

The McClanahan Spring area would be expected to receive the most attention since the road to that point is county maintained and wide enough to allow easy passage by most standard vehicles. Adequate parking would be available for cars and horse trailers. Visitors would not have the opportunity to drive to the end of the cherry stem. This would reduce 2.5 miles of motor vehicle opportunity while enhancing horseback riding and hiking opportunities by eliminating conflict between the different types of use. Passing and parking congestion problems would also be avoided, as would the need for construction and earth moving to widen the vehicle route and parking area in support of

vehicle use to the end of the cherry stem. Three other trailheads would receive considerably less but regular use. All other access points would be expected to receive light use. Impacts from vehicle trespass would be expected to decrease as development at access points would dissuade vehicles from continuing into the Wilderness.

Private property near McCullough Spring would be acquired from a willing seller which would assure continued public access to that section of the wilderness. Seeking formal water rights would help to assure water availability for recreational use.

Alternative 2 (Human activity least evident)

Areas of Critical Environmental Concern

Under this alternative, existing wilderness access points would be utilized keeping modification of critical habitat within the ACEC to a minimum. In the Wee Thump Joshua Tree Wilderness, several areas impacted by parking and camping on the Wilderness side of the boundary roads and approximately 4.2 miles of former vehicle trail would be rehabilitated. The overall affect to the ACEC would be beneficial by rehabilitating existing impacts.

Cultural Resources

Construction activities and improvements that support implementation of this management plan would be evaluated for effects to cultural resources. This would include cultural resource inventories of the Area of Potential Effect specific to each undertaking and the possibility of mitigating sensitive or threatened sites.

Rehabilitation projects would be designed so as to avoid impacts to cultural resources. If avoidance as described in the proposal is not possible, the proposal would either 1) not be implemented, 2) a new design would be proposed in a separate EA, or 3) the sites would be mitigated after consultation with Nevada State Historic Preservation Office (SHPO) and the development and approval of a treatment plan.

Potential impacts to sites in the Wilderness areas include direct and indirect damage from pedestrian traffic, vandalism, removal of artifacts, and unauthorized excavations. Site stewardship efforts and increased patrol by law enforcement officers and other BLM staff would help reduce impacts to cultural sites. Periodic monitoring of visitor use would trigger mitigation efforts if impacts to cultural resources are detected.

Noxious Weeds

The likelihood for weed introduction through horse use would be reduced through the Proposed Action. The ability to detect weeds would be enhanced through greater emphasis on monitoring. Weed treatment procedures in the wilderness setting would be clearly defined and compatible with limiting noxious weeds.

Threatened or Endangered Species

Affects to listed and sensitive species would be similar to those described in Alternative 1 (Proposed Action). Where this alternative differs is in the amount of disturbance that is expected to occur. Allowing the anticipated volume of vehicle use in the cherry stem behind McClanahan Spring could cause impacts to rosy two-tone penstemon and yellow two-tone penstemon, sensitive plant species which inhabits this wash, because the route is narrow and widening would occur with an increase in volume of parking and passing vehicles. This alternative would result in approximately 12.1 acres of disturbance to desert tortoise and sensitive wildlife habitat. This includes approximately 10 acres of existing disturbance that would be restored to natural condition and 2.1 acres of existing disturbance that would remain unavailable as habitat. The final result would be the permanent loss of approximately 2.1 acres of tortoise and sensitive wildlife habitat would be lost. The proposed management would assure availability of water for the benefit of wildlife species utilizing the wilderness areas.

Wetlands or Riparian Zones

Under this alternative, additional protection would be provided to riparian areas by enlarging livestock exclosures and creating several new exclosures. Enlarged exclosures would help restore riparian areas to Proper Functioning Condition (PFC) by re-establishing vegetation and reducing compaction. Achieving PFC, or an upward trend is a management objective in the Las Vegas RMP. Cattle drift to the eastern side of the wilderness would be more controlled. Seeking water rights when they become available would also serve to put riparian areas under greater protection.

Wilderness

Untrammelled. Under this alternative trammeling activities would continue in the South McCullough and Wee Thump Joshua Tree Wilderness areas but under plan guidelines may occur less frequently. Removal and use of vegetation through livestock grazing would continue to occur under the existing Allotment Management Plan, however measures would be taken to prevent this activity in the portion of the wilderness closed to grazing. Activities may continue to control fire, however, most occurrences of fire in the pinyon zone would receive minimal control. Activities may continue in the control of weeds, and future wildlife relocation activities may occur under the plan through guidelines. Rehabilitation projects would be a trammeling effect in the short term, but would not over the long term.

Naturalness and primeval character. The naturalness and primeval character of the South McCullough and Wee Thump Joshua Tree Wilderness areas would remain mostly intact. Actions are defined to prevent most unnatural changes in vegetation resulting from fire or fire control. In the pinyon zone, most fires would not be suppressed and this would allow for natural ecosystem change. In the lower elevations, where vegetation converting fires are a risk due to red brome density, all fires would be suppressed as soon

as possible. Non-native plants would continue to persist in large areas (for example, red brome for which control methods are not available), but most noxious weeds would be removed to restore and preserve the wilderness' natural character. Positive action may be authorized to support healthy, viable, and naturally distributed wildlife populations.

Undeveloped. Under this alternative, six range developments at springs (troughs and or exclosures), would remain within the South McCullough Wilderness and two would be removed. A corral, 840 feet of range fence, and a well would be removed. In the South McCullough Wilderness, 5.9 miles of foot worn hiking path would remain, and 14 miles of trail would be reclaimed. Two prospecting dig sites would be reclaimed, though relying on natural reclamation for the site would result in the disturbance persisting for an indefinite period of time. In the Wee Thump Joshua Tree Wilderness 4.2 miles of trail would be reclaimed. In both areas, personal property, including geocaches, would be removed as encountered.

Outstanding opportunities for solitude or a primitive form of recreation. Visitor encounters would be difficult to predict under this alternative, but most would occur in the west central part of the South McCullough Wilderness. No method for managing visitor encounters would be enacted which could diminish experiences for some visitors. The lack of controls, however, would be desirable for other visitors. Group size, campfire, camping distance from water, camping length of stay regulations, and restrictions of equestrian use to trails would be in place and diminish the unconfined recreational opportunities. Opportunities for trail hiking and riding would be limited. Opportunities for cross country travel, and the risk and challenge that that presents, would be present through the majority of the Wilderness areas.

Vegetation

This alternative would provide rehabilitation of most existing trails and standards for informal trails (those not reclaimed because of regular visitor use) to prevent unnecessary degradation of vegetative conditions. No trail designation would occur. The McCullough Trail is most likely to remain because it's used by cattle, and is easily found by visitors. This alternative would establish defined vehicle access and parking at wilderness boundaries. Rehabilitation of prospecting digs would occur slowly through natural recruitment. Vehicle parking and turn around points will be established once sites are inventoried for sensitive species. Therefore, impacts from parking or from unauthorized vehicles continuing into the wilderness would be less than the no action alternative. Limiting recreational riding and pack stock animals to washes would protect fragile cryptobiotic crusts, and reduce vegetation trampling. A group size would be established that would reduce the potential for vegetation impacts within the Wilderness. Riparian vegetation would recover to its potential as more and larger areas would be protected by exclosure fences designed to exclude cattle use.

Fire

Fire management objectives are strongly oriented to suppression in the lower elevations. Minimum Impact Suppression Techniques limit the use of motorized vehicles and certain

techniques that may cause suppression impacts to wilderness characteristics. Although suppression remains the objective in the upper pinyon woodlands elevations in the short term, appropriate response allows for greater areas burned within that response. In the long term, the primeval character of the wilderness would be less affected by fire suppression by allowing fire to play its natural role in the upper pinyon woodland portions of the wilderness through a future plan of wildland fire use for resource benefits.

Wildlife

This alternative would result in approximately 12.1 acres of disturbance to wildlife habitat. This includes approximately 10 acres of existing disturbance that would be restored to natural condition and 2.1 acres of existing informal trail disturbance that would remain unavailable as habitat. Ultimately, approximately 2.1 acres of wildlife habitat would be lost.

Ground disturbing activities may affect wildlife species through loss of habitat features such as cover and forage and mortality or displacement of individuals during construction. Highly mobile species such as birds, jackrabbits, and coyote are less likely to be lost. In contrast, less mobile species such as reptiles, small mammals, and desert kit fox (*Vulpes macrotus*) are more likely to be injured or killed during construction activities.

Management under this alternative would assure availability of water for the benefit of wildlife species utilizing the wilderness areas. Formally seeking water rights would help to assure water availability for wildlife use.

Range

Cattle would continue to graze in Pasture 4 within the Wilderness as managed under the Jean Lake Allotment Management Plan. Except for a corral which is no longer in use, all range developments including spring developments and riparian enclosure fences would be kept and maintained in the Wilderness. Cattle drift from the active allotment to the eastern portion of the South McCullough Wilderness which is closed to grazing would require increased attention and intensive livestock management.

Recreation

No recreation trail opportunities would be identified and most existing trails would be rehabilitated, except if receiving regular use. Approximately 5.9 miles of trail (the McCullough Trail) known to receive regular use would be retained and maintained in a manner to prevent resource impact, though would not be marked on the ground or depicted on maps. The overall result would be fewer visitors though guidebooks or other private sector information would likely become available to encourage additional use. Visitors would not frequently encounter disturbed areas as rehabilitation would occur at a quicker rate. Impacts from vehicle trespass would be reduced as measures to dissuade

vehicle use continuing into the Wilderness would be taken. Horseback riding would be allowed only in washes which would limit riding to up and back (no loop trips).

Although no management on the number of encounters would be established, elimination of trails and establishment of a group size would cause encounters to be low. The main exception would be the McCullough Trail, especially on the McClanahan Spring side. Consistent with the commercial services needs assessment (see Appendix B), visitors may be able to secure a guide through an educationally based organization, but hunting guiding would not be available. No geocaching would be allowed and if encountered would be removed immediately. This alternative would be consistent with visual resource management objectives.

The McClanahan Spring area would be expected to receive the most attention since the road to that point is county maintained and wide enough to allow easy passage by most standard vehicles. Vehicles would be able to drive to the end of the cherry stem which would lead to passing and parking congestion as inadequate space is present for more than three vehicles to park. There would be potential for conflict between non-motorized and motorized activity in the corridor. The second most likely visited area would be the Railroad Springs area for those ascending McCullough Mountain. All other access points would be expected to receive light, though regular use. The presence of private land in the McCullough Spring area may limit the future ability to access the wilderness there.

Alternative 3 (Human activity enhancement)

Areas of Critical Environmental Concern

Under this alternative, existing wilderness access points would be utilized keeping modification of critical habitat within the ACEC to a minimum. In the Wee Thump Joshua Tree Wilderness, a 0.1 mile section of new trail would create minimal surface disturbance. Several areas impacted by parking and camping on the Wilderness side of the boundary roads would be rehabilitated. The overall affect to the ACEC would be beneficial by rehabilitating existing impacts.

Cultural Resources

Construction activities and improvements that support implementation of this management plan would be evaluated for effects to cultural resources. This would include cultural resource inventories of the Area of Potential Effect specific to each undertaking and the possibility of mitigating sensitive or threatened sites.

Designated trails would be situated so as to avoid direct or indirect impacts to cultural resources. In addition, rehabilitation projects would also be designed so as to avoid impacts to cultural resources. If avoidance as described in the proposal is not possible, the proposal would either 1) not be implemented, 2) a new design would be proposed in a separate EA, or 3) the sites would be mitigated after consultation with Nevada State

Historic Preservation Office (SHPO) and the development and approval of a treatment plan.

Facilitating access to an these areas by development of trails or publicizing information increases potential impacts to cultural resources due to cumulative impacts from increased visitation. This alternative would create the greatest chance for these impacts to occur. Potential impacts to sites in the Wilderness Areas include direct and indirect damage from pedestrian traffic, vandalism, removal of artifacts, and unauthorized excavations.

Site stewardship efforts and increased patrol by law enforcement officers and other BLM staff would help reduce impacts to cultural sites. Periodic monitoring of visitor use would trigger mitigation efforts if impacts to cultural resources are detected.

Noxious Weeds

The potential introduction of weed seed through horse droppings would be spread over a much wider area and harder to detect or treat. The ability to detect weeds would be enhanced through greater emphasis on monitoring. Weed treatment procedures in the wilderness setting would be clearly defined and compatible with limiting noxious weeds.

Threatened or Endangered Species

Affects to listed and sensitive species would be similar to those described in Alternative 1 (Proposed Action). Where this alternative differs is in the amount of disturbance that is expected to occur. Allowing the anticipated volume of vehicle use in the cherry stem behind McClanahan Spring could cause impacts to rosy two-tone penstemon and yellow two-tone penstemon, sensitive plant species which inhabits this wash, because the route is narrow and widening would occur with an increase in volume of parking and passing vehicles. This alternative would result in approximately 15.1 acres of disturbance to desert tortoise and sensitive wildlife habitat. This includes approximately 3.4 acres of existing disturbance that would be restored to natural condition, 10.6 acres of existing disturbance that would remain unavailable as habitat, and 1.1 acres of new habitat disturbance. The final result would be the permanent loss of approximately 11.7 acres of tortoise and sensitive wildlife habitat would be lost. An unknown number of informal trails may be created in the future by casual users. These may be rehabilitated or modified if determined to have a negative impact.

Management under this alternative would assure availability of water for the benefit of wildlife species utilizing the wilderness areas. Formally seeking water rights would help to assure water availability for wildlife use.

Wetlands or Riparian Zones

Under this alternative, additional protection would be provided to riparian areas by enlarging livestock exclosures and creating several new exclosures. Enlarged

exclosures would help restore riparian areas to PFC by re-establishing vegetation and reducing compaction. Achieving PFC, or an upward trend is a management objective in the Las Vegas RMP. Cattle drift to the eastern side of the wilderness, and use of riparian vegetation there, would be most controlled under this alternative. Seeking water rights when they become available would also serve to put riparian areas under greater protection.

Wilderness

Untrammelled. Under this alternative, trammeling activities would continue in the South McCullough and Wee Thump Joshua Tree Wilderness areas but under plan guidelines may occur less frequently than the no action. Removal and use of vegetation through livestock grazing would continue to occur under the existing Allotment Management Plan, however measures would be taken to prevent this activity in the portion of the wilderness closed to grazing. Activities may continue in the control of fire, however, most occurrences of fire in the pinyon zone would burn normally. Activities may continue in the control of weeds, and future wildlife relocation activities may occur under plan guidelines. Rehabilitation projects would be a trammeling effect in the short term, but would not be expected to occur over the long term.

Naturalness and primeval character. The naturalness and primeval character of the South McCullough and Wee Thump Joshua Tree Wilderness areas would remain mostly intact. Actions are defined to prevent most unnatural changes in vegetation resulting from fire or fire control. In the pinyon zone most fires would not be suppressed and this would allow for natural ecosystem change. In the lower elevations, where vegetation converting fires are a risk due to red brome density, all fires would be suppressed as soon as possible. Non-native plants would continue to persist in large areas (for example, red brome for which control methods are not available), but most noxious weeds would be removed to restore and preserve the wilderness' natural character. Positive action may be authorized to support healthy, viable, and naturally distributed wildlife populations.

Undeveloped. Under this alternative, eight range developments at springs (troughs and or exclosures), would remain within the South McCullough Wilderness and two would be removed. A corral, 840 feet of range fence, and a well would be removed. In the South McCullough Wilderness, 17 miles of trail would remain, and 5 miles of trail would be reclaimed. Other trail segments using washes and approximately 28 trail markers would be present. Two prospecting dig sites would be reclaimed. In the Wee Thump Joshua Tree Wilderness, 4.2 miles of trail would remain. Several mining adits would be reclaimed.

Outstanding opportunities for solitude or a primitive form of recreation. Visitor encounters would regularly occur on the trail system in the west central part of the South McCullough Wilderness. Visitor encounters would be managed which would help assure desirable experiences for some visitors. Controls, however, would not be desirable for other visitors. Campfire, camping distance from water, and camping length of stay regulations, would be in place and diminish the unconfined recreational opportunities.

Many opportunities for trail hiking and riding would be present. Opportunities for cross country travel, and the risk and challenge that that presents, would be present through the majority of the Wilderness areas.

Vegetation

Alternative 3 would provide rehabilitation of some former vehicle trails, but most would be left in place for non-motorized recreational use. New trails could be designated based on future demand. Trail maintenance standards would be adopted which would prevent undue degradation of vegetative conditions. Widening the Knight Ranch Road between the McClanahan Camp and trailhead would result in the removal of 8 acres of vegetation, including approximately 10 large Joshua trees. Vehicle parking and turn-around points will be established once sites are inventoried for sensitive species. Therefore, impacts from parking or from unauthorized vehicles continuing into the wilderness would be less than the no action alternative. The potential for new trail development impacting vegetation would also be present, especially from cross country horse riding. In this desert environment, repeated cross country stock travel can quickly result in impacts which are slow to recover. Allowing stock animals to graze would likely occur around springs where cattle spend the majority of time grazing. The season of use that would be expected by horseback riders, fall, late winter, and spring, coincides with the active plant growth period. This seasonal impact would be harder on plants in that their ability to reproduce would be compromised. Grazing of stock animals could cause utilization levels set for cattle grazing to be reached earlier. Stock animal grazing impact to vegetation would also occur during periods of rest from cattle grazing and could compromise the rest period designed to benefit range vegetation. Riparian vegetation would recover to its potential as more and larger areas would be excluded from high cattle use. Prospecting disturbances would more quickly rehabilitate through active rehabilitation measures.

Fire

Fire management objectives are strongly oriented to suppression in the lower elevations. Minimum Impact Suppression Techniques limit the use of motorized vehicles and certain techniques that may cause suppression impacts to wilderness characteristics. Although suppression remains the objective in the upper pinyon woodlands elevations, appropriate response allows for greater areas burned within that response. This approach allows for most natural fires, especially the most common small fire, to behave naturally. Considerably less frequent large fires may play their natural role in the wilderness depending on regional factors such as fire preparedness levels and equipment availability but would this would not be the objective for fire management in the wilderness. The chance of an ignition in the Wee Thump Joshua Tree Wilderness would be reduced by creating a green strip along Highway 164. Should a fire occur there, fire response would allow for quicker and more definite action to prevent vegetation conversion.

Wildlife

This alternative would result in approximately 15.1 acres of disturbance to wildlife habitat. This includes approximately 3.4 acres of existing disturbance that would be restored to natural condition, 10.6 acres of existing disturbance that would remain unavailable as habitat, and 1.1 acres of new habitat disturbance. Ultimately, approximately 11.7 acres of wildlife habitat would be lost. Roughly 26.8 miles of existing trails would remain and 0.2 acres of disturbance would occur to construct new trail. An unknown number of informal trails may be created in the future by casual users. These may be rehabilitated or modified if determined to have a negative impact on wildlife.

Ground disturbing activities may affect wildlife species through loss of habitat features such as cover and forage and mortality or displacement of individuals during construction. Highly mobile species such as birds, jackrabbits, and coyote are less likely to be lost. In contrast, less mobile species such as reptiles, small mammals, and desert kit fox (*Vulpes macrotus*) are more likely to be injured or killed during construction activities.

The proposed management would assure availability of water for the benefit of wildlife species utilizing the wilderness areas. Formally seeking water rights would help to assure water availability for wildlife use.

Range

Cattle would continue to graze in Pasture 4 within the Wilderness as managed under the Jean Lake Allotment Management Plan. Except for a corral which is no longer in use, all range developments including spring developments and riparian enclosure fences would kept and maintained in the Wilderness. Cattle drift from the active allotment to the eastern portion of the South McCullough Wilderness closed to grazing would receive greater emphasis. Constructing a fence along the ridge crest of the McCullough Range would be very time consuming, expensive, and would require a major commitment of the permittee's time for maintenance.

Recreation

Alternative 3 would designate most existing trails (approximately 37.6 miles including sections located in washes) and make them available for use by depicting them on maps and signing them. Visitor use would also be supported by trailheads and other vehicle access points (where there are not trails) by providing parking and turn around space. The majority of the wilderness would not have trails and cross country recreational use may continue. Except for visitor use encounter standards to maintain solitude, no limitations would occur for hiking, horseback riding, or camping (including use of campfires). All forms of guiding would be permitted, however, the need for all forms of guiding is not supported by the commercial services needs assessment (see Appendix B). A monitoring system would be established to prevent or respond to impacts to resources such as trails, camping and camp fire impacts, crowding, and impacts to other resources.

Guidebooks or similar material from the private sector may also attract visitors, but would most likely duplicate that already identified by BLM. This alternative would be consistent with visual resource management objectives.

The McClanahan Spring area would be expected to receive the most attention since the road to that point is county maintained and wide enough to allow easy passage by most standard vehicles. Parking for cars and horse trailers would accommodate that use. Vehicles would be able to drive past the trailhead which would lead to parking congestion as inadequate space is present for more than three vehicles to park. In addition, the potential for conflict would be greater between non-motorized activity with motorized use drawn in from the adjacent off-highway vehicle area. Six other trailheads would receive less but regular use. All other access points would be expected to receive light use. Visitors would not frequently encounter disturbed areas as rehabilitation would occur at a quicker rate. Impacts from vehicle trespass would be expected to lessen as access point developments would dissuade vehicle activity continuing into the Wilderness.

Geocaching would be allowed by permit and after site specific analysis. Private property near McCullough Spring would be acquired from a willing seller which would assure continued public access to that section of the wilderness. Formerly seeking water rights would help to assure water availability for recreational use.

Alternative 4 (No Action)

Areas of Critical Environmental Concern

Under the no action alternative, no further impact and no benefiting activities would occur to the ACEC.

Cultural Resources

Potential impacts to sites in the Wilderness areas include direct and indirect damage from pedestrian traffic, vandalism, removal of artifacts, and unauthorized excavations. Selecting the no action alternative would lose opportunities to direct visitation away from cultural sites to avoid potential future impacts. To increase patrol by law enforcement officers and other BLM staff would help reduce impacts to cultural sites.

Noxious Weeds

The potential introduction of weed seed through horse droppings would be spread over a wide area and harder to detect or treat. Weed treatment procedures in the wilderness setting would not be as clearly defined and would require further analysis.

Threatened or Endangered Species

Under the no action alternative, the BLM would not be conducting or authorizing any actions in the South McCullough and Wee Thump Joshua Tree Wilderness areas that would further impact threatened or sensitive species. Lack of turn-arounds and trailheads at vehicle access points may result in vehicles parking or turning around off the existing roads. As a result, desert tortoises sheltering in burrows or under vegetation may be injured, killed or harassed. All existing disturbances would remain and the final result would be the permanent loss of approximately 14.9 acres of tortoise and sensitive wildlife habitat would be lost to existing and anticipated visitor use impacts. In addition, vehicle activity may result in impacts to rosy two-tone penstemon and yellow two-tone penstemon, sensitive plant species which inhabits washes.

Wetlands or Riparian Zones

Under this alternative, riparian areas around some springs would continue to be impacted through routine use by livestock. Some riparian areas may not be able to attain their maximum potential extent because of impact from livestock. The diversity, vigor, and composition of riparian vegetation communities may be reduced by continued livestock grazing. Soils around frequently used springs may be excessively compacted by hoof action or made more susceptible to erosion by reduction in plant cover after grazing. Riparian areas around some springs on the eastern side of the Wilderness may continue to be impacted by livestock roaming beyond the boundaries of the existing grazing allotment. Most of these riparian areas lack enclosure fences and livestock are attracted to these areas by available water and forage. Riparian areas would continue to be managed according to objectives and direction provided in the Las Vegas Resource Management Plan (RMP). The RMP directs management to the minimum requirement of Proper Functioning Condition be achieved. Where found to not be in compliance, independent proposals to bring them into compliance would need to be prepared.

Wilderness

Untrammelled. Under the no action alternative, no new actions would occur that may trammel the South McCullough and Wee Thump Joshua Tree Wilderness areas. Continued existing management includes measures to control fire, control weeds, removal and use of vegetation through livestock grazing and the alteration of water sources. These activities all have a trammeling affect on the wilderness. Other trammeling activities could occur on a case by case basis.

Naturalness and primeval character. The naturalness and primeval character of the South McCullough and Wee Thump Joshua Tree Wilderness areas would remain mostly intact. However, some changes in vegetation could occur through control of fire in the pinyon zone of the South McCullough Wilderness. Non-native plants would continue to persist in large areas of both Wilderness areas (for example, red brome for which control methods are not available).

Undeveloped. Under this alternative, eight range developments at springs (troughs and or exclosures), a corral, 840 feet of range fence, and a well would remain within the South McCullough Wilderness. In the South McCullough Wilderness, 17 miles of trail would be present. Additionally, two prospecting dig sites would also remain. In the Wee Thump Joshua Tree Wilderness, 4.2 miles of trail would be present. In addition, several mining adits would remain.

Outstanding opportunities for solitude or a primitive form of recreation. Visitor encounters would be difficult to predict under this alternative, but most would occur in the west central part of the South McCullough Wilderness. No method for managing visitor encounters would be enacted which could diminish experiences for some visitors. The lack of controls, however, would be desirable for other visitors. Only seasonal fire restrictions, camping distance from water, and camping length of stay regulations would be in place that may diminish unconfined recreational opportunities. Opportunities for trail hiking and riding would be limited, and following foot worn hiking paths could be difficult due to poor condition. Risk and challenge would be present through the majority of the wilderness.

Vegetation

Under the no action alternative, rehabilitation of vegetation would be restricted. Limited control of vehicles from entering the wilderness would likely result in continued impact to all trails created prior to wilderness designation. No trails or mining impact areas would be actively rehabilitated; some natural rehabilitation could occur depending on use patterns. The potential for new trail development impacting vegetation would also be present, especially from cross country horse riding. In this desert environment, repeated cross country stock travel can quickly result in impacts which are slow to recover. The potential introduction of weed seed through horse droppings would also be spread over a much wider area and harder to detect or treat. Without defined parking areas impact to vegetation at access points could cover areas larger than necessary. Visitors would create their own parking areas which may be unnecessarily large or redundant, and, without a clear stopping point at the wilderness boundary, the potential for impact to vegetation by vehicles inside the wilderness is an additional risk. Without monitoring group size and establishing limitations if impacts begin, additional impacts to vegetation could occur. Impact to vegetation by fire in the lower elevations would be an elevated risk. Should fire occur, the conversion from native vegetation to dominance of red brome is a considerable risk. Riparian areas would not reach potential for plant density, diversity, and vigor without measures to protect springs from high cattle use.

Fire

Fire management objectives are strongly oriented to suppression in the lower elevations. Minimum Impact Suppression Techniques limit the use of motorized vehicles and certain techniques that may cause suppression impacts to wilderness characteristics. Although suppression is remains the objective in the upper pinyon woodlands elevations, appropriate response allows for greater areas burned within that response. This approach

allows for most natural fires, especially the most common small fire, to play their primeval role. Considerably less frequent large fires would have some opportunity for occurrence in the wilderness depending on regional factors such as fire preparedness levels and equipment availability but would this would not be the objective for fire management in the wilderness. The chance of an ignition in the Wee Thump Joshua Tree Wilderness is only mediated by seasonal fire restrictions which apply throughout the region.

Wildlife

Under the no action alternative, the BLM would not be conducting or authorizing any actions in the South McCullough and Wee Thump Joshua Tree Wilderness areas that would further impact wildlife species. Lack of turn-arounds and trailheads at vehicle access points may result in vehicles parking or turning around off the existing roads. As a result, less mobile species, such as kangaroo rats and lizards, sheltering in burrows or under vegetation may be injured, killed or harassed. All existing disturbances would remain and the final result would be the permanent loss of approximately 14.9 acres of wildlife habitat would be lost.

Recreation

Under this alternative, no special provisions would be made to manage recreation. Hiking and horseback riding opportunities would continue on an informal basis on approximately 23.4 miles of existing trail not located in washes. In addition, numerous washes may also serve as travel paths. However, no trails would be designated, signed, or maintained and visitors may encounter sections that are unstable, or loose the trail when it enters or exits a wash. Information to visitors would be minimal and primarily from private sector guidebooks or similar material. Without a system for managing trails, existing foot worn hiking paths may have problem sections where soil erosion would be present and new trails may appear as alternates, especially if use levels increase. Disturbed areas may not recover, or may recover at a very slow rate and be seen by visitors for many years. Existing management is not expected to affect visual resource management.

No limitations would occur for hiking, horseback riding, or camping (including use of campfires). No management for the number of encounters or group size would be established. This would provide maximum flexibility for visitor use, but could have detrimental impact on a visitors ability to find solitude and an area where human impacts are rare. Guiding would continue to occur for hunting, but other guiding would not be permitted. Geocaches would not be permitted and would be removed at least 10 days after discovery.

The McClanahan Spring area would be expected to receive the most attention since the access road, the Knight Ranch Road, is county maintained and wide enough to allow easy passage by most vehicles. Vehicles would be able to drive to the end of the cherry stem which would lead to passing and parking congestion as inadequate space is present for more than three vehicles to park without earthmoving and construction. There could be

potential for conflict between non-motorized and motorized activity in the corridor. The second most likely area for visitors, although considerably less visited, would be the Railroad Spring area for those ascending McCullough Mountain. All other access points would be expected to receive light, though regular use. The presence of private land in the McCullough Spring area may limit the future ability to access the wilderness there. Impacts from vehicle trespass would be expected to continue with fiberglass signs as the only measure to dissuade vehicle activity continuing into the Wilderness.

Range

Cattle would continue to graze in Pasture 4 within the Wilderness as managed under the Jean Lake Allotment Management Plan. A number of range developments would continue to be present in the Wilderness and would receive periodic maintenance. Livestock would drift from authorized areas into areas closed to grazing and if not detected in a timely manner, could cause damage to vegetation.

Cumulative Impacts

The cumulative impacts are common to all alternatives. The cumulative impacts analysis identifies the cumulative impact the proposal will have in combination with past, present, and reasonably foreseeable future actions within the geographic area surrounding the South McCullough and Wee Thump Joshua Tree Wilderness areas (roughly bounded by Sheep Mountain and the Lucy Gray Mountains on the west, the New York Mountains on the south, the Highland Range on the east, and the Sloan Canyon National Conservation Area on the north). Within this area, an estimated 1,300 acres of surface disturbance is present and an additional 100 acres is expected to occur. The source of the disturbance is: 1) Widespread motorized roads and trails including paved highways, county roads, rights-of-ways, and off-highway vehicle trails. Several competitive off-highway vehicle events occur every year east of the South McCullough Wilderness. 2) Multiple high voltage power lines pass through the two areas on both sides of and over the McCullough Range; an additional powerline is expected to be added within the existing corridor. 3) Several communication sites are located on high points in the southern end of the area. 4) Mining operations for sand, gravel, landscaping rock, and perlite are located around the north, west, and south sides of the area. The existing pits are expected to be enlarged. Some limited precious metals exploration has occurred on mining claims in the southern part of the area. 5) Livestock grazing is authorized within the area west of the McCullough Range.

The total amount of disturbance under this Environmental Assessment ranges from 12.1 acres to 15.1 acres, dependant upon the alternative selected. This includes existing disturbance (for example, exiting trails) that may remain as is or may be rehabilitated (and so is disturbance that would only be present in the short-term). The long term disturbance that would remain in the two Wilderness areas ranges from approximately 2.1 to 14.9 acres, dependant upon the alternative selected. Approximately 8.1 acres of long-term disturbance would be present under the proposed management of the South McCullough and Wee Thump Joshua Tree Wilderness areas of which 1.1 acres would be

new disturbance. Neither the proposal or the analyzed alternatives to the proposal would result in cumulatively significant impacts when considered in combination with the existing activities (described above) within the geographical area. The proposal would reduce the potential for new impact and rehabilitate approximately 6.3 acres of existing impact.

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Appendix A

Scoping Issues Not Addressed In Wilderness Management Plan

Some issues identified during scoping are already addressed in existing planning documents or policy, or out of the scope of this plan. The issues and a statement of why each issue is not addressed in this plan are listed below.

- Promotion of use in these Wilderness areas which will also reduce heavy use in other areas.

The BLM provides public information about the Wilderness areas it manages, including information about the recreational opportunities present. Visitors displaced from heavy use in another area may learn of the South McCullough and Wee Thump Joshua Tree Wilderness areas and choose to visit. BLM policy is to manage Wilderness to provide for its protection, the preservation of its natural conditions, and the preservation of its wilderness character. To take actions specifically to attract and promote use in these Wilderness areas so that heavy use elsewhere is reduced conflicts with that policy. Furthermore, to intentionally promote use may lead to a second round of heavy use and visitor displacement.

- Provide Wilderness Rangers on the ground to monitor, sign, and correct violations.

The need for BLM Wilderness Rangers is acknowledged. However, the actual ability to dedicate personnel is based on budget and other factors beyond the scope of this plan.

- Develop volunteer programs

The BLM has an established volunteer program which includes utilizing volunteers for wilderness projects. Volunteers under BLM direction may assist in implementing the plan, however, the decision to do so is not an issue in need of a decision in the Wilderness Management Plan.

- Grazing operations management, especially utilization.

A portion of the Jean Lake Allotment is within the South McCullough Wilderness. An Allotment Management Plan exists for management of grazing throughout the allotment. Issues such as utilization levels and season of use are best addressed for the whole allotment through the Allotment Management Plan. This Wilderness Plan addresses other grazing issues including facility

development and maintenance, use of motor vehicles, and controlling cattle from entering portions of the Wilderness closed to grazing.

- Use of helicopters in wildlife management

Flying over the Wilderness areas for monitoring is regulated by the Federal Aviation Administration, not BLM. The use of helicopters is only regulated by BLM if landing or if anything or anyone is picked up or dropped off. If a project is proposed for any motorized transport or equipment, BLM would evaluate the need for that through a minimum requirement decision and minimum tool assessment. No regular helicopter use occurs or is proposed, so consideration would be on a rare case by case basis.

Appendix B

Commercial Services Needs Assessment

Section 4 (c) of the Wilderness Act prohibits commercial enterprises within wilderness. However, Section 4 (d) (6) establishes a special provision allowing for commercial services to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of Wilderness areas. This assessment establishes the extent to which guiding and outfitting may be necessary and appropriate within the South McCullough and Wee Thump Joshua Tree Wilderness areas.

The South McCullough and Wee Thump Joshua Tree Wilderness areas are readily and easily accessible to many visitors, and so the need for commercial guiding and outfitting assistance is not great. No applications for guiding or outfitting have been submitted to the BLM for these areas, with the exception of hunting guides. Furthermore, hunting guides have not sought permits for the two Wilderness areas specifically, but for guiding within the Las Vegas Field Office area as a whole. The majority of destinations in the two Wilderness areas are within an easy day hike from a parking point and the terrain generally does not require special skills beyond navigational ability.

Guided and outfitted horseback trips are not necessary to realize the wilderness purposes of the two Wilderness areas. In large wilderness areas, overnight horse pack trips can be of great assistance to visitors in realizing the recreational and wilderness opportunities of the area. Overnight horse packing requires experience and specialized equipment not readily available to some visitors. The limited trail system and small size of the South McCullough and Wee Thump Joshua Tree Wilderness areas, however, are not conducive to overnight horse pack trips. Day horse trips may also assist visitors in realizing recreational and wilderness opportunities. However, potential for visitor conflict is high on the limited trail system offered in the two Wilderness areas. Permitting regular guided trips would likely bring in users who would not otherwise have visited the area, thereby increasing visitor use levels and increasing the likelihood of exceeding trail condition standards and visitor encounter standards. The horseback experience is usually more critical than a wilderness experience to those seeking guided day riding opportunities. Those opportunities can be obtained in a natural setting outside of the South McCullough and Wee Thump Joshua Tree Wilderness areas at the nearby Red Rock Canyon National Conservation Area. Additional capacity for guided rides could also be offered nearby the South McCullough and Wee Thump Joshua Tree Wilderness Areas and at other locations in Clark County.

Guided hiking trips are not necessary to realize the wilderness purposes of the two Wilderness areas. Day and overnight hiking requires some skill in orienteering, travel skills over uneven terrain, or camping skill. Those not having those skills will have opportunities to follow marked trails located at trailheads off of roads passable by most vehicles. BLM maps and brochures and private guidebooks provide the primary assistance useful to visitors. A few references to these two Wilderness areas are currently

known in guidebooks, and more are expected in the future. Although guide services can provide assistance with orienteering, camping, and knowledge of the area, the two Wilderness areas are readily accessible to most hiking visitors with the existing and foreseeable information available.

A limited opportunity exists for guiding which has as a primary purpose, assistance to people with disabilities. Guided horseback rides or assistance in other modes of travel compatible with wilderness would be proper for making wilderness benefits of the area available to people with disabilities. To date, there is no known demand for such a service and if an application were to be made, it is not expected an application would be for regular scheduled trips that would conflict with other visitors.

Some educational organizations are known to have general interest in leading students into these and other Wilderness areas for education about leave-no-trace, wild land values and ethics, or environmental education. Educational organizations have also been known to have an interest in leading physical education classes in some of the same areas. Education about leave-no-trace, wild land values and ethics, or environmental education creates a direct benefit to the wilderness and would not be expected to be frequent or regularly scheduled. The infrequency and irregularity of an occasional class trip (where leave-no-trace principles are incorporated into the permit) would provide little conflict with other users, and would be proper for realizing the wilderness benefits of the area. Physical education or regularly scheduled class trips, however, normally have other goals more critical than a wilderness experience. Many educational goals can be achieved in a natural setting outside of the South McCullough and Wee Thump Joshua Tree Wilderness areas. Permitting regularly scheduled classroom trips would likely increase visitor encounter levels in excess of standards and cause trail condition to exceed standards. Physical education or regularly scheduled class trips would not be proper for realizing the recreational or wilderness benefits of the two Wilderness areas.

Big game (bighorn sheep or mule deer) within the South McCullough Wilderness area is located mostly in areas designated as Wilderness. Therefore, big game hunters have few opportunities to hunt in non-wilderness areas. Some individual hunters may not thoroughly understand animal behavior, seasonal movements of animals, feeding areas, pack animals, gear, and skills needed to locate, take, and, once harvested, care for a big game animal. Hunting guides are a proper option for realizing the recreational benefits of a wilderness dependent hunt. Big game hunt areas are geographically defined, and since the number of tags are limited, the number of guides that may operate in the area are also limited. Small game hunting opportunities are considerably more wide spread, and not limited by geographically restricted tags. Therefore, hunters in pursuit of small game may readily seek opportunities in non-wilderness areas. Small game hunting guides are not necessary for realizing recreational or other wilderness purposes of the two Wilderness areas.

Appendix C

Fire Suppression Guidelines

- A qualified Resource Advisor will be notified and/or will respond to all fires occurring in or threatening Wilderness Areas.
- Use of motorized vehicles or heavy equipment (bulldozers, etc.) will only be used in Wilderness if the fire is threatening human life or property or wilderness characteristics. The Field Manager must approve the use of motorized vehicles or heavy equipment in all cases.
- Air resources (helicopters and Single Engine Air Tankers) will be included in the WILDCAD system for all wilderness fire suppression activities.
- Helibases, staging areas, and fire camps will be located outside of Wilderness Areas, unless authorized by the Field Manager.
- Use of retardant must be approved by the Field Manager except for the Wee Thump Joshua Tree Wilderness, for which the Incident Commander may approve use of retardant.
- If retardant is not approved, water may be dropped from aircraft.
- Landing of helicopters will be kept to a minimum and will only occur in existing openings.
- All fire suppression activities will use Minimum Impact Suppression Techniques (MIST) at all times.
- Crews may use conventional hand tools and, with approval from the Resource Advisor, may conservatively use chainsaws for fire line construction. Chainsaw use and line width should be kept to a minimum. Tree stumps will be cut flush to the ground level. Utilization of existing natural barriers, minimum scratch line, and cold trailing is encouraged, where feasible. Hand line construction will be rehabilitated back to the natural contour.
- A “Leave No Trace” policy will be used in Wilderness Areas. All evidence of human activity must be removed to the maximum extent possible.
- Noxious weeds will be controlled through the following guidelines:
 - Engines, crew carriers, overhead vehicles, and helitack/helicopter support vehicles coming from off-district will, upon check-in and prior to proceeding to the incident, will be washed down at a government or commercial facility if they were not cleaned at release from the previous assignment, or are coming from a known area infested with noxious weeds.

- The wash down will concentrate on the undercarriage, with special emphasis on axles, frame, cross members, motor mounts, and on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse disposed of in a waste receptacle.
- All portable equipment used on an incident (including but not limited to pumps, hose, fittings, water storage items, tents, tarps, helicopter support equipment, fold-a-tanks and free-standing tanks) will be cleaned of plant debris prior to being used on the incident.
- During initial briefings, wash downs will be mentioned and facilities made available for oncoming crews
- Upon leaving an incident in the Las Vegas Field Office area, all vehicles will follow the wash down procedures above. Vehicles will be cleared of wash down procedures during checkout and crew evaluations.

Fire Suppression Constraints in Desert Tortoise Habitat:

- Initiate full suppression activities with minimum surface disturbances to reduce loss of tortoise cover and to minimize the spread of exotic annual grasses.
- Use of motor vehicles or heavy equipment will be restricted to the minimum necessary to suppress wildfires within desert tortoise habitat. Obliterate all tire tracks to reduce possibility of future use by the public.
- Use of aerial retardant is authorized. The use of foam or fugitive retardant is preferable to iron oxide retardant.
- Do not burn out unburned fingers or islands of vegetation, unless needed to protect human life or property.
- Provide all firefighters and support personnel with a briefing on desert tortoises and their habitat. The briefing will identify steps that can be taken by fire personnel to minimize take of tortoises or tortoise habitat (i.e., destruction, harm or harassment), particularly due to vehicular activity.